SMX-4130, The Liberty Oil & Uranium Co.

1/16/56 - Application received in Washington

2/13/56 - " referred to field for examination

2/16/56 - Draft to Shaw by Tuma

2/17/56 - Shaw advised Tuma - exam will be made

? 3/28/56 - Examined

7/3/56 - Date of Field Team Report

7/9/56 - F7 Report transmitted to Washington

7/16/56 - F7 Report received by Operating Committee

7/29/56 - Denied

Delay of more than 3 months between date property was examined and date of Field Team report has not been explained.

FJ

700

FILE COPY
Surname:
F.E. Johnson
Sellridge

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. W. David McClain
Attorney at Law
Suite 250, Equitable Building
Denver, Colorado

SEP - 7 1956

Re: Docket No. DMEA-4130 (Uranium)
The Liberty Oil and Uranium Company
Red Devil Mine
San Juan County, Utah

Dear Mr. McClain:

This is with further reference to your letter, dated July 30, 1956, which concerns the denial of your company's application for Government exploration assistance to explore the subject property and also the period of time required to render our decision.

Since the Administrator's letter of August 7, 1956, I have caused a further review to be made by the Government agencies concerned, of your company's application and other available related data. Their findings show that although small erratic mineral deposits might be discovered on your property, they would not add materially to the overall supply of minable uranium ore, and therefore, are not promising for Government participation in an exploration program. Under the circumstances, the decision rendered in the Administrator's letter of July 27, 1956, to deny your company's application for Government exploration assistance, remains unchanged.

With regard to the period of time required to reach our conclusions, I must agree that a long period of time elapsed from the date of the application until our decision was rendered. However, I wish to point out that the property lies at an elevation of 7,500 feet and, consequently, could not be examined until late spring when the road was opened which made the property accessable for the examination on March 28, 1956. In addition, because of the unusual heavy work load of applications, our field engineers were not able to complete the report on your proposed project until late June. I regret the long delay in the rendering of our decision on this project.

Again, we wish to thank you for your interest in the Defense Minerals Exploration Program and for bringing your property to our attention.

Sincerely yours,

Frank E. Johnson (Reg. cs)
Acting Administrator

FLKnouse/izm 9-5-56
cc to: Docket
Mr. Knouse
Admr.'s Reading File
DMEA Field Team, Reg. III (2)

Messrs. JECrawford, Rm. 3643) each with copies of Salsbury's
THKilsgaard, Rm. 5224) and Hasler's memo 8/27/56 and
JOHosted, Rm. 3210, GSA) Mr. Traver's memo 8/29/56

P.G.S.

8/31/56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.
AIR MAIL

RECEIVED
AUG 31 1956

224 New Customhouse
Denver 2, Colorado

August 29, 1956

Memorandum

To: Chairman of the Operating Committee

From: DMEA Field Team, Region III

Subject: Docket DMEA-4130 (Uranium) Liberty Uranium and Oil Company, (Red Devil mine), San Juan County, Utah

Enclosed are four copies of the field's comments on Mr. W. D. McClain's protest on the decision for denial of the application submitted on the subject docket. This memorandum responds to Acting Chairman Martin's letter of August 7, 1956.

The Field Team realizes that Mr. McClain has a legitimate basis for a complaint in respect to the time required to prepare the report and submit it after the field examination was made. However, he must realize that the delay from the time the application was received until the field examination date was entirely justified because of weather conditions. We are in perfect agreement with the field's reasons for denial.

The Executive Officer discussed this case with both the Administrator and Mr. McClain by telephone.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

DMEA
DEPARTMENT OF THE INTERIOR
AUG 29 1956
REGION III
DENVER, COLORADO

August 27, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. William Hasler
M. H. Salsbury

Through: E. N. Harshman
John F. Shaw

Subject: Reply to W. David McClain's letter regarding denial of DMEA application 4130 (Uranium). The Liberty Oil and Uranium Company, Red Devil Mine, San Juan County, Utah.

An application for a DMEA loan on the above property was transmitted to this office January 13, 1956 for appraisal relative to the advisability of a field examination.

The Red Devil property is underlain by the Jurassic Morrison formation in which the Salt Wash or ore-bearing sandstone member is generally unfavorable for the occurrence of significant ore deposits. The Salt Wash sandstone is reddish in color, rather than being a favorable gray or brown. This was known at the time the property was recommended for a field examination, but an examination was advised due to the fact some of the surrounding mines had had small amounts of production. The ore bodies in the area are typically those found as small erratic pods and occasional buried trees that contain some ore. A denial was indicated in a memorandum of January 28, 1956, as an examination was only tentatively advised.

The property lies at an elevation of 7,500 feet on the flank of the La Sal mountains and, consequently, could not be examined until late spring, and the roads had to be opened by a bulldozer when the property was examined on March 28, 1956.

Delay in completing the report was encountered when numerous other field examinations were required in an attempt to clean up a lengthy backlog, consequently the report of examination was not transmitted until June 25. Some of this delay could possibly have been avoided by improved timing and having had additional personnel to relieve the heavy work load, but it was not forthcoming nor is it yet.

The ore bodies, though small, are rather high grade, but there is no particular trend. They occur as high-grade pods erratically distributed which makes exploration for them difficult as well as expensive. The examining team recommended denial because it is felt that there is not enough uranium to add materially to the overall national supply or that deposits which can be mined profitably are present. The area is generally unfavorable for ore deposits. A reconnaissance by the Atomic Energy Commission of the Brumley Ridge area which includes the subject property, concluded essentially the same as our examining team, that the area does not warrant extensive exploration.

J. William Hasler

J. William Hasler,
U.S. Geological Survey

Harry T. Robertson for

M. H. Salsbury,
U. S. Bureau of Mines

JWH/mlr

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
AUG 13 1956

224 New Customhouse
Denver 2, Colorado

August 10, 1956

Memorandum

To: John F. Shaw (2)
J. W. Healer

From: DMEA Field Team, Region III

Subject: Docket DMEA-4130 (Uranium), Liberty Uranium and Oil Company, (Red Devil mine), San Juan County, Utah

Enclosed are a copy of a letter from the Chairman of the Operating Committee, dated August 7, 1956, a copy of a letter from W. D. McClain to the Administrator, dated July 30, 1956, and a copy of the reply from the Administrator to the applicant's attorney, dated August 7, 1956.

Please review this matter and rush your comments and recommendations to this office so that a reply to Mr. McClain may be prepared.

DMEA Field Team, Region III

W. M. TRAVER

By W. M. Traver
Executive Officer

Enclosures

HMC/pw

cc: Harshman
Sec.Op.Comm. (2)
DMEA-4130
Chron

Surname copy

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

FLKnouse
Elder
Martin
HJohnson

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

AUG - 7 1956

Re: Docket No. DMEA-4130 (Uranium)
The Liberty Oil and Uranium Company
Red Devil Mine
San Juan County, Utah

Dear Mr. Traver:

Enclosed are two copies of a letter, dated July 30, 1956, from W. David McClain, Attorney at Law, on behalf of The Liberty Oil and Uranium Company concerning its application which was denied on July 27.

Kindly reveiw this matter and submit your comments and recommendations in order that a reply to Mr. McClain maybe prepared.

Sincerely yours,

W. S. Martin
ACTING Chairman, Operating Committee

Enclosures

FLKnouse/ai 8-3-56
cc to: Docket
Admr. Reading File
Operating Committee
Code 700
Mr. Knouse
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

APPROVED:

FRANK D. LAMB
Bureau of Mines

N. E. Nelson
Geological Survey

R.C.K.

Surname copy

700

Knouse
Ellis
Martin
Lamb
Nelson
Yeffmson

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

AUG - 7 1956

Mr. W. David McClain
Attorney at Law
Suite 250 Equitable Building
Denver, Colorado

Re: Docket No. DMEA-4130 (Uranium)
The Liberty Oil and Uranium Company
Red Devil Mine
San Juan County, Utah

Dear Mr. McClain:

Acknowledgment is made of your letter, dated July 30, referring to my letter of July 27, 1956, denying the application of The Liberty Oil and Uranium Company under the subject docket number.

Your communication, together with the docket, is being reviewed and you will be advised concerning this matter in the near future.

Sincerely yours,

G. O. Mittendorf (lw)

Administrator

FLKnouse/ai
8-7-56
cc to: Docket
Admr.'s Reading File
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

8-1-56

EDWIN A. WILLIAMS

W. DAVID McCLAIN
ATTORNEY AT LAW
SUITE 250 EQUITABLE BUILDING
DENVER, COLORADO

July 30, 1956

RECEIVED
AUG - 1 1956

Mr. C. O. Mittendorf, Administrator
Defense Minerals Exploration Administration
United States Department of the Interior
Washington 25, D. C.

Re: Docket No. DMEA-4130 (Uranium)
Red Devil Mine
San Juan County, Utah

Dear Sir:

This is in reference to your letter dated July 27, 1956, addressed to The Liberty Oil and Uranium Company, relative to the above matter.

This letter came as a shock, as we had favorable reports by 4 recognized engineers. One of these men was first connected with uranium, vanadium and radium ores previous to 1920. One other has at least 10 or 15 years experience in this same field, another is a former A.E.C. man. Therefore, if field experience is a criterion, the conclusions of such men should carry considerable weight to us at least, due to the long experience of these men and their standing in the profession.

We were also amazed at the length of time it took to reach your conclusions. The original application was dated December 30, 1955, the field examination by your organization was made in March, 1956, and the rejection dated July 27, 1956. We believe the length of time between the field examination and the final conclusions reached is inexcusable.

The above should merit your consideration.

Very truly yours,

W. D. McClain

W. D. McClain

WDM:abw

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION DOCKET COPY
WASHINGTON 25, D. C.

July 27, 1956

Summary of Proposed Project

Object: Denial of application for an exploration project.

Docket No. DMEA-4130

Commodity: Uranium

Applicant: Liberty Oil and Uranium Company
250 Equitable Building
Denver, Colorado

Property: Consists of 14 unpatented lode mining claims (known as the Red Devil Mine) as follows: Red Devil Nos. 1 and 2, Temp Nos. 1 through 6, Amp Nos. 1 and 2, R.O.Metals Nos. 211, 212, 219 and 220, in secs. 21 and 28, T. 27 S., R. 24 E., S.L.M.& B., San Juan County, Utah. Applicant's property rights are covered in a "Contract of Sale and Purchase" signed October 27, 1955.

Date of Application: December 30, 1955.

Work Proposed: A 3-stage drilling program, consisting of 40 holes, aggregating 3500 feet of non-core and 980 feet of core drilling, estimated to cost $18,845.00. Stage I consisted of 28 holes, aggregating 2680 feet of core and non-core drilling; Stage II: 6 holes, or 1200 feet of core and non-core drilling, and Stage III: 6 holes, 600 feet of core and non-core drilling. The target of the program being to explore the second ormiddle sandstone of the Salt Wash Morrison formation. The depth to the base of the second sandstone layer on the property where drilling is proposed is 100 to 200 feet.

The property has been explored by means of two short adits and 21 closely-spaced drill holes on the Red Devil No. 1 claim. According to the Applicant, three drill holes cut mineralized rock in the upper sandstone rim of the Salt Wash and seven holes penetrated mineralized material in the middle or second sandstone rim. The thickness and grade of only two of the reportedly mineralized grade and thickness was based on radiometric logs are as follows:

Hole No. 13 - 2.5 feet 0.38% U_3O_8
1.3 feet 0.25% U_3O_8

Hole No. 14 - 5 feet 0.71% U_3O_8

From 1951-1954 a total of 33.3 tons were produced, averaging 0.84% U_3O_8 and 3.44% V_2O_5 from the property. About 3000 feet south of the Red Devil No. 1 prospect a stripping operation on the R. O.Metals claims produced 46.6 tons averaging 0.73% U_3O_8 and 3.19% V_2O_5.

Cost of Proposed Work: Independent Contracts:

3,500 feet of non-core drilling @ $2.50/ft.	$8,750.00	
980 feet of core drilling @ $3.00/ft.	3,430.00	
4,480 feet of gamma-ray logging @ $0.30/ft.	1,344.00	
Tractor w/dozer time - 110 hrs. @ $20.00/hr.	2,200.00	
Total		$15,724.00

Labor and Supervision

Consulting geologist	$ 500.00	
Supervising geologist	1,000.00	
Total		$ 1,500.00

OperatingMaterials and Supplies

Core boxes - 95 @ $1.25 each	$ 118.75	
Sample sacks - 1,500 @ $0.07 each	105.00	
Total		$ 223.75

Miscellaneous

Assaying	$ 500.00	
Contingencies @ 5% of $17,975.75	897.25	
		$ 1,397.25

Total Estimated Cost of Project	$18,845.00
Government participation @ 75%	$14,133.75

Field Team
Report -
July 3, 1956 (Joint report by William B. Gazdik, USGS, and Carl Belser, USBM)

The Red Devil group of claims is located high on the west flank of the LaSal Mountains, a complex group of laccoliths, poorly exposed, marine terrestrial-sediments ranging in age from Upper Jurassic to Upper Cretaceous.

The few known ore deposits in the vicinity of the claims are found in the upper part of the Salt Wash member of the Jurassic Morrison formation. The Applicant reports mineralization in a second Salt Wash rim about 100 feet below the upper rim.

The beds in the vicinity of the claims dip about 23° NW and strike N. 47° E. Within a radius of a mile or two the dip and the strike of the beds change considerably and huge fault blocks are titled in a random fashion typical of areas adjacent to the property concerned. The rocks in the vicinity of the claims are highly fractured.

A small amount of uranium-vanadium ore has been produced from the upper part of the Salt Wash member in the area. A few small rolls and high grade pockets were strip-mined on the R. O. Metal claims about 3,000 feet south of the Red Devil No. 1 prospect.

Mineralized rock consists principally of sandstone impregnated with uranium and vanadium minerals. Lesser amounts of uranium and vanadium are present in carbonaceous material, fossil logs, and mudstone layers. Secondary minerals, including azurite and malachite, are associated with these deposits.

A detailed examination of the small prospect tunnels on the Red Devil No. 1 claim and the open pit cuts on the R. O.Metals property indicates that ore deposits in this area occur as clusters of small high-grade rolls and pockets localized around fossilized logs. Such high-grade rolls and discontinuous pockets appear to have an erratic spatial distribution and are not restricted to one stratigraphic level within an individual sandstone lens. Barren rock separates the small mineralized pockets and rolls which make up an individual ore deposit.

It is concluded that the few known ore deposits in the vicinity consist of small discontinuous pockets and rolls localized around fossilized logs. Closely spaced drilling by the applicant failed to extend the limits of the small deposit that was mined out on the Red Devil No. 1 claim, and production from the subject area has been small. The changes for finding ore bodies of significant size and grade are poor. Therefore, it is recommended that the application for Government aid be denied.

The Field Team concurs with the examiners' recommendations.

Comments of Commodity Specialists

U. S. Geological Survey - W. P. Williams, July 19, 1956

The examining team concludes that the Applicant's proposed exploration work would have a poor change of discovering worthwhile new ore deposits. I agree with the examining team that the application should be denied.

U. S. Bureau of Mines - James Paone, July 19, 1956

The field examiners conclude that the chances of finding ore bodies of significant size and grade are poor, and the application should be denied. We concur that the application should be denied.

Rare and Miscellaneous Metals Division - F. L. Knouse, July 26, 1956

The mining of the uranium ore deposits from this and other nearby properties indicates rather conclusively that additional exploration drilling on the property may discover additional small, irradically-spaced, disconnected deposits (25 to 50-ton size), but the aggregate reserves of such deposits are not likely to add significant reserves for the National Defense Program. Therefore, it is recommended that the application for Government exploration assistance be denied.

Conclusions:

A review of all our information relative to the proposed project indicates that the probability of making a significant discovery by the Applicant's proposed program is not sufficiently

promising for Government participation. Therefore, the application should be denied.

F. L. Knouse

F. L. Knouse, Acting Chief
Rare and Miscellaneous
Metals Division

700

FILE COPY
Surname:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

JUL 27 1956

Liberty Oil and Uranium Company
250 Equitable Building
Denver, Colorado

Re: Docket No. DMEA-4130 (Uranium)
Red Devil Mine
San Juan County, Utah

Gentlemen:

Your application for aid in an exploration project and other information available to us in Washington concerning the above-named property have been reviewed.

Projects approved by the Defense Minerals Exploration Administration must, in its judgment, show definite promise of yielding materials of acceptable grade in quantities that will significantly improve the mineral supply position for the National Defense Program.

Careful study of all our information, although noting some uranium ore on your property, indicates to us that the probability of disclosing significant ore reserves is not sufficiently promising to justify Government participation. We regret to advise you that, under these circumstances, your application for exploration assistance is denied.

We wish to thank you for your interest in the Defense Minerals Program and for bringing your property to our attention.

Sincerely yours,

C. O. Mittendorf

Administrator

FLKnouse/izm 7-27-56
cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
DMEA Field Team, Reg. III (2)
Messrs. JECrawford, Rm. 3643
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

Surname copy

Department of the Interior

DMEA

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

14X1401(01) Revolving Fund, Defense Production Act, Interior (Allocated Working Fund to the Office of the Secy.)

Liberty Oil and Uranium Company
250 Equitable Building
Denver, Colorado

JUL 27 1956

Re Docket DMEA-4130, letter denying your application forwarded to you today.

C. O. Mittendorf

C. O. MITTENDORF, ADMINISTRATOR

FLKnouse/gla
7-27-56
cc to: Admr.'s Reading File
Operating Committee
Docket
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA
Code 700
Mr. Knouse
DMEA Field Team, Region III (2)
Confirmation to Liberty Oil and Uranium Company

7-23-56

RECEIVED
JUL 20 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

July 19, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

Subject: Report of Examination, DMEA Docket 4130 (Uranium)
Liberty Oil and Uranium Company (Red Devil Property),
San Juan County, Utah

I have reviewed the report of examination, DMEA Docket 4130, Liberty Oil and Uranium Company (Red Devil Property), San Juan County, Utah, dated July 3 and received in this office July 14, 1956. I have also discussed it with Joseph O. Hosted, Washington representative of the Atomic Energy Commission.

The field examiners conclude that the chances of finding ore bodies of significant size and grade are poor. They recommend that the application be denied.

We concur in the recommendation that the application for exploration assistance be denied.

The report is being forwarded to the Chief, Division of Minerals, in accordance with the routing slip attached thereto.

James Paone

James Paone

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee

From: James Paone, Bureau of Mines Alternate Member
Uranium Commodity Committee

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James Paone

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

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James Paone

7-20-56

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4130, Liberty Oil and Uranium Company, Red Devil claims, San Juan County, Utah.

The examining team concludes that the applicant's proposed exploration work would have poor chances for discovering worthwhile new ore deposits. Principal reasons are, 1) known ore deposits in the area are very small and erratically distributed, both vertically and horizontally, 2) twenty-one closely-spaced drill holes by the applicant failed to extend the small, known ore body, or to find new ore reserves.

All information available indicates that DMEA participation in exploration costs on the subject property is not warranted. I, therefore, agree with the examining team that the application should be denied.

W. P. Williams

W. P. Williams

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

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W. P. Williams

WPWilliams, btr
G 7/19/56

cc: J. E. Crawford, 3641
J. O. Hosted, 3210
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

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WPWilliams, btr
G 7/19/56

cc: J. E. Crawford, 3641
J. O. Hosted, 3210
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
JUL 20 1956

July 19, 1956

Memorandum

To: R. W. Ellis, Defense Minerals Exploration Administration

From: W. P. Williams, U. S. Geological Survey

Subject: Review of field examination report, DMEA 4130, Liberty Oil and Uranium Company, Red Devil claims, San Juan County, Utah.

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W. P. Williams

WPWilliams:btr
G 7/19, 1956

cc: J. E. Crawford, 3641
J. O. Hosted, 3210
Director's reading file (4212)
Branch reading file (4212)
DMEA (3)
Chron. file
Docket file

7-16-56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

July 9, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
JUL 18 1956

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company (Red Devil Property), San Juan County, Utah

Enclosed are the original and three copies of a joint engineering and geologic Report of Examination on the subject property.

The field examiners conclude that the proposed exploration will not result in the discovery of a significant amount of uranium ore. They recommend that the application for exploration assistance be denied.

We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Traver
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(date)

IN REPLY REFER TO:

DMEA

RECEIVED JUL 13 1956

Date Rec'd. JUL 6 1956

BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

July 5, 1956

TRANSMITTED
JUL 9 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. F. Shaw
E. N. Harshman

Subject: DMEA Docket 4130 (Uranium), Liberty Oil and Uranium Company, (Red Devil), San Juan County, Utah

Enclosed are the original and nine copies of a joint examination report by W. B. Gazdik, Geological Survey, and Carl Belser, Bureau of Mines, covering their examination of the subject property.

Although some uranium ore is known to occur on the Red Devil group of claims the examiners conclude that the proposed exploration will not result in the discovery of significant ore deposits. They recommend that the application for exploration assistance be denied.

We concur with the conclusions and recommendations.

John F. Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(date)

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. Box 360
Grand Junction, Colorado

DEPOSITS
RECEIVED
JUN 26 1956
U.S. GEOL. SURVEY
DENVER, COLORADO

June 25, 1956

TRANSMITTED
JUL 9 1956

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: J. William Hasler

Subject: Letter of transmittal
DMEA docket 4130 (Uranium), Liberty Oil and Uranium Company, (Red Devil group), San Juan County, Utah.

The Liberty Oil and Uranium Company applied to the Defense Minerals Exploration Administration for aid in exploring their Red Devil group of claims, located high on the west flank of the La Sal mountains, in San Juan County, Utah.

The application was referred to the field and an examination was made March 28 by W. B. Gazdik, U. S. Geological Survey, and Carl Belser, U. S. Bureau of Mines. They were accompanied by David F. Coolbaugh and Gordon R. Carroll, representing the applicant.

The applicant proposed an exploration drilling program to drill for ore bodies that may be found in the upper part of the Salt Wash member of the Morrison formation of Jurassic age.

The applicant's claims are in an area where there have been small individual ore bodies of uranium and vanadium mined. The bodies are of rather high grade but will average only approximately 50 tons of ore a piece. These individual ore bodies are erratic in occurrence, in that they have no particular trend between one another, as well as being separated stratigraphically throughout the Salt Wash member of the Morrison.

It is concluded that the ore bodies in the area are high grade, but small and that their mode of occurrence indicates that further exploration would not reveal enough uranium and vanadium that would add materially to the picture of uranium-vanadium supply. It is, therefore, recommended that the application be denied. I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was contacted relative to the appraisal of the property.

Enclosed are 10 copies of figure 2 for inclusion in the joint geologic and engineering report. The borchure also is enclosed.

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(date)

F. M. Byers, Jr.
for J. William Hasler,
Geologist

JWH/mlr
Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JUL 9 1956

DMEA 4130

Red Devil Mine

Liberty Oil and Uranium Company

San Juan County, Utah

Uranium

Joint Engineering and Geological Report

by

William B. Gazdik, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

July 3, 1956

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(date)

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2. Claim map showing Red Devil group of claims, existing drill holes and proposed Stage I drill holes, Liberty Oil and Uranium Company, sections 21 and 28, T. 27 S., R. 24 E., San Juan County, Utah. DMEA 4130	10

DMEA 4130

RED DEVIL MINE
LIBERTY OIL AND URANIUM COMPANY
SAN JUAN COUNTY, UTAH

INTRODUCTION AND SUMMARY

Liberty Oil and Uranium Company, 250 Equitable Building, Denver, Colorado, made application on December 30, 1955, for aid in exploring for uranium ore at the Red Devil mine on the west slope of the La Sal Mountains, San Juan County, Utah. The applicant proposed a three-stage exploration project consisting of core and non-core drilling 4,480 feet in 46 holes at a total estimated cost of $18,845.

The claims were examined on March 28, 1956, by a DMEA examining team.

The property consists of 14 unpatented claims in secs. 21 and 28, T. 27 S., R. 24 E., S. L. M., San Juan County, Utah.

The chief ore-bearing zone is the upper part of the Salt Wash member of the Jurassic Morrison formation, although a second ore-bearing sandstone rim is reported about 100 feet below the upper Salt Wash sandstone rim. The Salt Wash member is about 300 feet thick and consists of three lenticular sandstone layers separated by variegated mudstones. In the vicinity of the property the beds dip 23° NW and strike N. 47° E.

Ore reserves are small. It is concluded that the chances of finding ore bodies of significant size and grade are poor and

the application is recommended for denial.

ACKNOWLEDGMENTS

The examining team was accompanied by D. Coolbaugh, engineer, representing the applicant.

The Atomic Energy Commission was consulted regarding the project.

Memorandums by George C. Selfridge, John E. Crawford, and N. E. Nelson were considered.

LOCATION, TOPOGRAPHY, AND CLIMATE

The property included in the application consists of 14 unpatented claims located on the southwest flank of Mt. Tukuhnikivatz near the head of Hell Canyon in secs. 21 and 28, T. 27 S., R. 24 E., S. L. M., San Juan County, Utah (figs. 1 and 2).

Altitudes range from a low of about 8,840 feet in Hell Creek at the south end of the claims to a high of about 9,500 feet at the north end. Rainfall is moderate and the winters are severe.

A poor, steep access road 9-miles long connects the property to a ranch road, from whence it is 5 miles to U. S. Highway 160 and 6 miles north to Moab. The Denver and Rio Grande Railroad passes through Thompson, Utah which is 32 miles north of Moab.

Labor, supplies, and equipment can be obtained at Moab and ore buying depots are at Moab and Thompson. Drilling water may be pumped or hauled from Hell Creek.

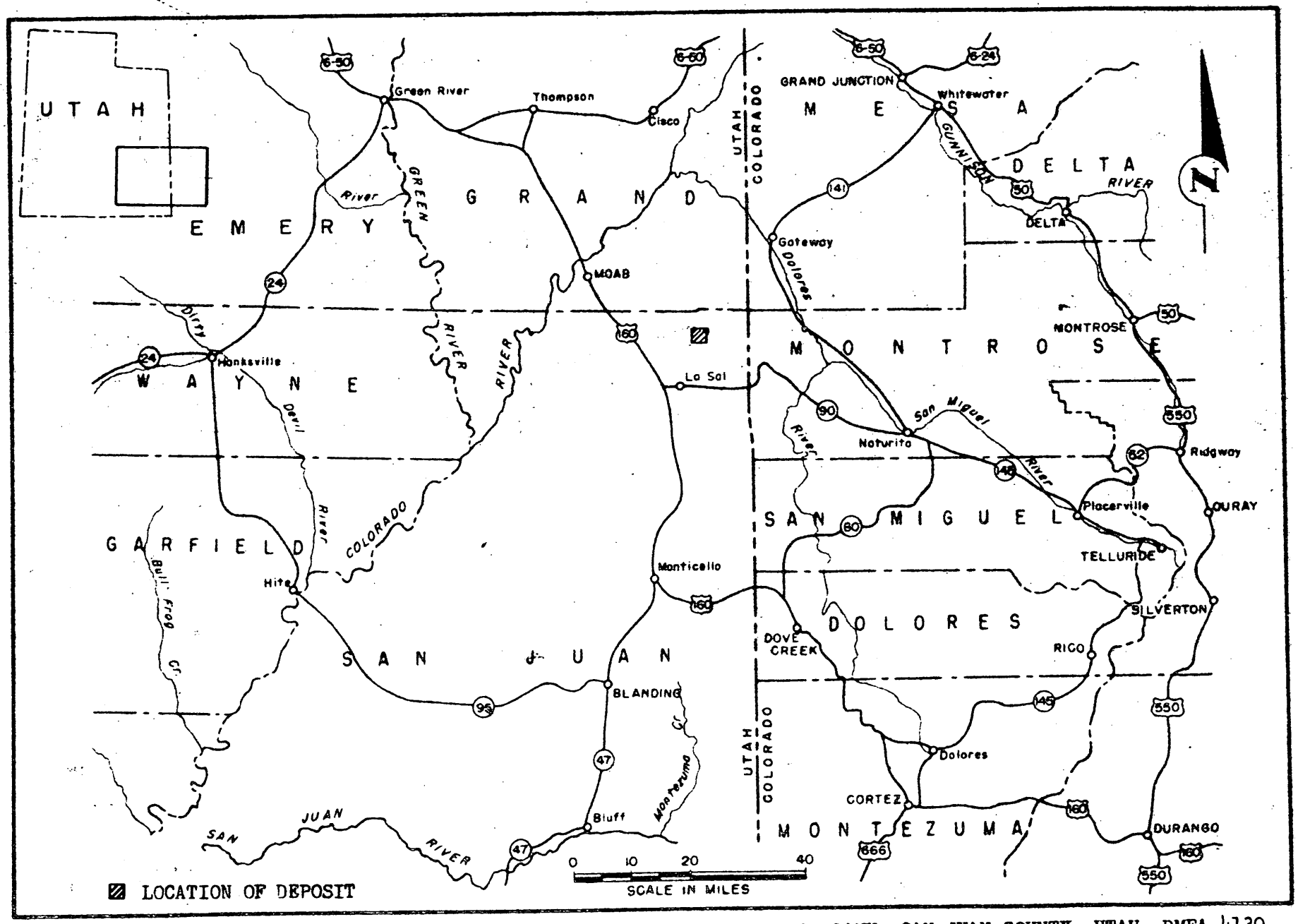

FIGURE 1 - LOCATION MAP, RED DEVIL MINE, LIBERTY OIL AND URANIUM COMPANY, SAN JUAN COUNTY, UTAH. DMEA 4130

HISTORY AND PRODUCTION

The Red Devil claims were located by J. N. Durham followed, in order, by locations of the Temps, Amps, and R. O. Metals claims.

Ore was mined between 1951 and 1954; 21 exploratory holes were drilled in 1955. Production totals 33.3 tons valued at $3,871.95 made in 16 shipments containing from 0.34 to 2.19 and averaging 0.84 percent U_3O_8 and 3.44 percent V_2O_5. A. E. C. production records show that 46.6 tons of ore with an average grade of 0.73 percent U_3O_8 and 3.19 percent V_2O_5 were shipped from the R. O. Metals Company strip mine about 3,000 feet south of Red Devil property.

OWNERSHIP

The 14 unpatented claims listed in the application are recorded in the office of the County Recorder of San Juan County, Utah, as follows:

Claim	Book	Page	Discovery Date	Locator	Amended Book	Amended Page	Amended Date
Red Devil No. 1	R-1	375		J.N.Durham	331	71	6/30/55
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Temp No. 1	81	532	4/1/54	J.N.Durham and Arwin Provonsha			
Temp No. 2	81	533	"	" "			
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Temp No. 4	81	534	"	" "			
Temp No. 5	81	534	"	" "			
Temp No. 6	81	535	"	" "			

Claim	Book	Page	Discovery Date	Locator	Amended Book	Amended Page	Amended Date
Amp No. 1	81	538	4/12/54	Dan Provonsha and Doug Carrol			
Amp No. 2	81	538	"	" "			
R.O.Metals No. 211	M-37	102	11/10/53	Jasper N. Durham			
R.O.Metals No. 212	M-37	103	"	" "			
R.O.Metals No. 219	M-117	438	6/15/54	" "			
R.O.Metals No. 220	M-117	439	6/15/54	" "			

On June 30, 1955, a contract of sale was made between Edd E. Provonsha, Arwin Provonsha, Dan Provonsha, Doug Carrol, and Jasper N. Durham, sellers, and the Liberty Oil and Uranium Company, buyer.

The claims appear to be located and recorded properly.

PRESENT STATUS

Exploration and development

The property has been developed by two short adits and 21 drill holes.

Mining and milling equipment and other facilities

Mining equipment on the property consists of an old I.R. 105 cfm gasoline compressor and jackhammer, both having doubtful value. Facilities consist of three access roads.

GEOLOGY

The Red Devil group of claims is located high on the west flank of the La Sal Mountains, a complex group of laccoliths in San Juan County, Utah. The rocks in the area are poorly exposed marine and terrestrial sediments ranging in age from upper Jurassic to upper Cretaceous. During Tertiary time these sediments were intruded by diorite, monzonite, and syenite porphyries that make up the tongue shaped laccoliths of the La Sal Mountains. Formational contacts are obscured by a soil mantle which is present over most of the area.

The few known ore deposits in the vicinity of the claims are found in the upper part of the Salt Wash member of the Jurassic Morrison formation. The applicant, however, reports mineralization in a second Salt Wash sandstone layer about 100 feet below the upper Salt Wash sandstone rim.

The Salt Wash member is about 300 feet thick and consists of three lenticular sandstone layers separated by variegated mudstones. Individual sandstone layers are composed of a series of coalescing lenses partially surrounded by mudstone. The sandstone lenses are light brown, medium- to medium-fine-grained and locally contain carbonaceous material and fossilized logs. Red and green mudstone seams and pebbles are included in the sandstone. Mudstone underlying the sandstone is generally red and locally a few inches of the underlying mudstone is altered green.

The beds in the vicinity of the claims dip about 23° NW and strike N. 47° E. Within a radius of a mile or two the

dip and the strike of the beds change considerably and huge fault blocks are tilted in a random fashion typical of areas adjacent to the La Sal group of laccoliths. The rocks in the vicinity of the claims are highly fractured but no definite joint system could be identified on the ground.

The depths to the base of the second or middle sandstone layer of the Salt Wash member would range from 100 to 200 feet on the part of the property that the company proposes to explore.

ORE DEPOSITS

The claims are in an area where a small amount of uranium-vanadium ore has been produced from the upper part of the Salt Wash member of the Morrison formation. A few small rolls and high grade pockets were strip-mined on the R. O. Metal claims about 3,000 feet south of the Red Devil No. 1 prospects.

Mineralized rock consists principally of sandstone impregnated with uranium and vanadium minerals. Lesser amounts of uranium and vanadium are present in carbonaceous material, fossil logs, and mudstone layers. Secondary copper minerals including azurite and malachite are associated with these deposits.

A detailed examination of the small prospect tunnels on the Red Devil No. 1 claim and the open pit cuts on the R. O. Metals property to the south indicates that ore deposits in this area occur as clusters of small high-grade rolls and pockets localized

around fossilized logs. Such high-grade rolls and discontinuous pockets appear to have an erratic spatial distribution and apparently are not restricted to one stratigraphic level within an individual sandstone lens. Barren rock separates the small mineralized pockets and rolls which make up an individual ore deposit. It is very doubtful that such deposits could be profitably mined at depths of several hundred feet.

Most of the commercial-grade ore appears to have been mined out on the Red Devil No. 1 claim. Drilling by the applicant on relatively closely spaced centers adjacent to the larger of the two prospect tunnels on the Red Devil No. 1 claim failed to disclose a northward extension of significant mineralization (fig. 2). According to the applicant, drill holes No. 3, 5, and 6 cut mineralized rock in the upper sandstone unit of the Salt Wash member and drill holes No. 5, 6, 12, 13, 14, 15, and 16 penetrated mineralized material in the middle or second Salt Wash sandstone. The thickness and grade of only two of the eight reportedly mineralized holes were presented by the applicant.

Hole No. 13	2.5 feet	0.38% U_3O_8
	1.3 feet	0.25% U_3O_8
Hole No. 14	5 feet	0.71% U_3O_8

The remaining 13 holes were presumably drilled through barren rock. The applicant bases his grade and thickness values on radiometric logs.

ORE RESERVES

No attempt was made to estimate the small amount of ore reserves that might be present on the applicant's property on the basis of gamma logs. The small rim deposits on the Red Devil No. 1 claim appear to be mined out.

PROPOSED EXPLORATION AND COSTS

The applicant proposes a three-stage drilling program to explore the property. Stage I consists of 2,680 feet of core and non-core drilling in 28 holes (fig. 2). Stage II consists of 1,200 feet of drilling in six holes and Stage III 600 feet of drilling in six holes. The applicant's estimated costs are:

Independent contracts		
3,500 feet of non-core drilling at $2.50/ft.	$ 8,750.00	
980 feet of core drilling at $3/ft.	3,430.00	
4,480 feet of gamma-ray logging at $0.30/ft.	1,344.00	
Bulldozing 110 hrs. at $20/hr.	2,200.00	
Total independent contracts		$15,724.00
Labor and supervision		
Geologist, consulting	$ 500.00	
Supervising geologist	1,000.00	
Total labor and supervision		$ 1,500.00

Operating materials and supplies

Core boxes 95 at $1.25 each	$ 118.75	
Sample sacks 1,500 at $0.07 each	105.00	
Total operating materials and supplies		$ 223.75

Operating equipment

None

Rehabilitation and repairs

None

New buildings, improvements, installations

None

Miscellaneous

Assaying		$ 500.00

Contingencies

5 percent of $17,947.75		$ 897.25
Total estimated cost for 4,480 feet of drilling		$18,845.00
Cost per foot		$ 4.21
Government participation, 75 percent or		$14,133.75
Estimated time for completion		3 months

CONCLUSIONS AND RECOMMENDATIONS

The few known ore deposits in the vicinity of the Red Devil group of claims consist of small discontinuous pockets and rolls localized around fossilized logs. Such small pockets and rolls appear to be erratically distributed and apparently are not

restricted to one stratigraphic level. Closely spaced drilling by the applicant failed to extend the small deposit that was mined out on the Red Devil No. 1 claim, and production from the subject area has been small.

On the basis of the foregoing it is concluded that chances of finding ore bodies of significant size and grade are poor. Potential ore bodies that might be found on the applicant's claims would likely be small and discontinuous and would not add much to the domestic uranium production. It is recommended, therefore, that the application for Government assistance be denied.

7-13-56

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

July 9, 1956

20th Ave Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Joint Report of Examination, Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company (Red Devil Property), San Juan County, Utah

Enclosed are the original and three copies of a joint engineering and geologic Report of Examination on the subject property.

The field examiners conclude that the proposed exploration will not result in the discovery of a significant amount of uranium ore. They recommend that the application for exploration assistance be denied.

We concur in this recommendation.

DMEA Field Team, Region III

By W. M. Tranor
Executive Officer

Enclosures

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(date)

IN REPLY REFER TO:

DMEA
Date Rec'd.
JUL 6 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Defense Minerals Exploration Administration
Denver Federal Center
Denver, Colorado

July 5, 1956

TRANSMITTED
JUL 9 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. F. Shaw
E. N. Harshman

Subject: DMEA Docket 4130 (Uranium), Liberty Oil and Uranium Company, (Red Devil), San Juan County, Utah

Enclosed are the original and nine copies of a joint examination report by W. B. Gazdik, Geological Survey, and Carl Belser, Bureau of Mines, covering their examination of the subject property.

Although some uranium ore is known to occur on the Red Devil group of claims the examiners conclude that the proposed exploration will not result in the discovery of significant ore deposits. They recommend that the application for exploration assistance be denied.

We concur with the conclusions and recommendations.

John F. Shaw
Superintendent of the Denver
Experiment Station

E. N. Harshman
Member, Field Team

Enclosures (10)
ENHarshman:mp

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

P. O. Box 300
Grand Junction, Colorado

IN REPLY REFER TO:

MINERAL DEPOSITS
DMEA
RECEIVED
JUN 28 1956
GEOLOGICAL SURVEY
DENVER, COLORADO

June 29, 1956

TRANSMITTED
JUL 9 1956

Memorandum

To: E. N. Harshman, DMEA Field Team, Region III

From: J. William Hasler

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The application was referred to the field and an examination was made March 23 by W. S. Gazdik, U. S. Geological Survey, and Carl Belser, U. S. Bureau of Mines. They were accompanied by David F. Coolbaugh and Gordon E. Carroll, representing the applicant.

The applicant proposed an exploration drilling program to drill the ore bodies that may be found in the upper part of the Salt Wash member of the Morrison formation of Jurassic age.

The applicant's claims are in an area where there have been small individual ore bodies of uranium and vanadium mined. The bodies are of rather high grade but will average only approximately 50 tons of ore a piece. These individual ore bodies are erratic in occurrence, in that they have no particular trend between one another, as well as being separated stratigraphically throughout the Salt Wash member of the Morrison.

It is concluded that the ore bodies in the area are high grade, but small and that their mode of occurrence indicates that further exploration would not reveal enough uranium and vanadium that would add materially to the picture of uranium-vanadium supply. It is, therefore, recommended that the application be denied. I concur with the conclusions and recommendations of the examining team.

The Atomic Energy Commission was contacted relative to the appraisal of the property.

Enclosed are 10 copies of figure 2 for inclusion in the joint geologic and engineering report. The brochure also is enclosed.

Reviewed by
DMEA OPERATING COMMITTEE

F. M. Byers, Jr.
for J. William Hasler,
Geologist

JWH/alr
Enclosures

7-16-56
(date)

UNITED STATES
DEPARTMENT OF THE INTERIOR
FRED A. SEATON, SECRETARY

DEFENSE MINERALS EXPLORATION ADMINISTRATION

REPORT OF EXAMINATION BY FIELD TEAM
REGION III

TRANSMITTED
JUL 9 1956

DMEA 4130

Red Devil Mine

Liberty Oil and Uranium Company

San Juan County, Utah

Uranium

Joint Engineering and Geological Report

by

William B. Gazdik, Geologist
Geological Survey

Carl Belser, Mining Engineer
Bureau of Mines

July 3, 1956

Reviewed by
DMEA OPERATING COMMITTEE
7-16-56
(Date)

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ILLUSTRATIONS

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2. Claim map showing Red Devil group of claims, existing drill holes and proposed Stage I drill holes, Liberty Oil and Uranium Company, sections 21 and 28, T. 27 S., R. 24 E., San Juan County, Utah. DMEA 4130	10

DMEA 4130

RED DEVIL MINE
LIBERTY OIL AND URANIUM COMPANY
SAN JUAN COUNTY, UTAH

INTRODUCTION AND SUMMARY

Liberty Oil and Uranium Company, 250 Equitable Building, Denver, Colorado, made application on December 30, 1955, for aid in exploring for uranium ore at the Red Devil mine on the west slope of the La Sal Mountains, San Juan County, Utah. The applicant proposed a three-stage exploration project consisting of core and non-core drilling 4,480 feet in 46 holes at a total estimated cost of $18,845.

The claims were examined on March 28, 1956, by a DMEA examining team.

The property consists of 14 unpatented claims in secs. 21 and 28, T. 27 S., R. 24 E., S. L. M., San Juan County, Utah.

The chief ore-bearing zone is the upper part of the Salt Wash member of the Jurassic Morrison formation, although a second ore-bearing sandstone rim is reported about 100 feet below the upper Salt Wash sandstone rim. The Salt Wash member is about 300 feet thick and consists of three lenticular sandstone layers separated by variegated mudstones. In the vicinity of the property the beds dip 23° NW and strike N. 47° E.

Ore reserves are small. It is concluded that the chances of finding ore bodies of significant size and grade are poor and

the application is recommended for denial.

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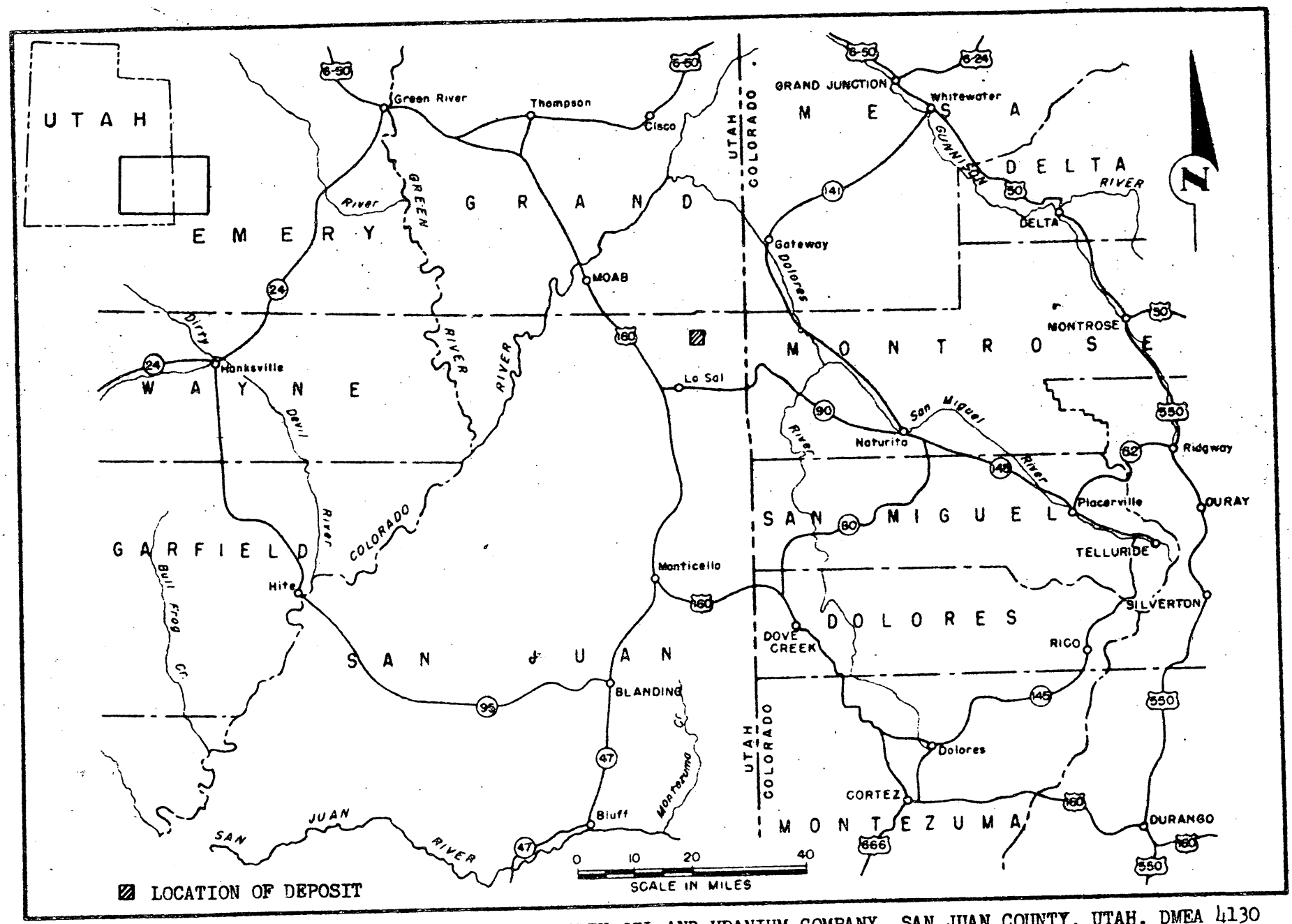

FIGURE 1 - LOCATION MAP, RED DEVIL MINE, LIBERTY OIL AND URANIUM COMPANY, SAN JUAN COUNTY, UTAH. DMEA 4130

HISTORY AND PRODUCTION

The Red Devil claims were located by J. N. Durham followed, in order, by locations of the Temps, Amps, and R. O. Metals claims.

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The claims appear to be located and recorded properly.

PRESENT STATUS

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GEOLOGY

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dip and the strike of the beds change considerably and huge fault blocks are tilted in a random fashion typical of areas adjacent to the La Sal group of laccoliths. The rocks in the vicinity of the claims are highly fractured but no definite joint system could be identified on the ground.

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ORE DEPOSITS

The claims are in an area where a small amount of uranium-vanadium ore has been produced from the upper part of the Salt Wash member of the Morrison formation. A few small rolls and high grade pockets were strip-mined on the R. O. Metal claims about 3,000 feet south of the Red Devil No. 1 prospects.

Mineralized rock consists principally of sandstone impregnated with uranium and vanadium minerals. Lesser amounts of uranium and vanadium are present in carbonaceous material, fossil logs, and mudstone layers. Secondary copper minerals including azurite and malachite are associated with these deposits.

A detailed examination of the small prospect tunnels on the Red Devil No. 1 claim and the open pit cuts on the R. O. Metals property to the south indicates that ore deposits in this area occur as clusters of small high-grade rolls and pockets localized

around fossilized logs. Such high-grade rolls and discontinuous pockets appear to have an erratic spatial distribution and apparently are not restricted to one stratigraphic level within an individual sandstone lens. Barren rock separates the small mineralized pockets and rolls which make up an individual ore deposit. It is very doubtful that such deposits could be profitably mined at depths of several hundred feet.

Most of the commercial-grade ore appears to have been mined out on the Red Devil No. 1 claim. Drilling by the applicant on relatively closely spaced centers adjacent to the larger of the two prospect tunnels on the Red Devil No. 1 claim failed to disclose a northward extension of significant mineralization (fig. 2). According to the applicant, drill holes No. 3, 5, and 6 cut mineralized rock in the upper sandstone unit of the Salt Wash member and drill holes No. 5, 6, 12, 13, 14, 15, and 16 penetrated mineralized material in the middle or second Salt Wash sandstone. The thickness and grade of only two of the eight reportedly mineralized holes were presented by the applicant.

Hole No. 13	2.5 feet	0.38% U_3O_8
	1.3 feet	0.25% U_3O_8
Hole No. 14	5 feet	0.71% U_3O_8

The remaining 13 holes were presumably drilled through barren rock. The applicant bases his grade and thickness values on radiometric logs.

ORE RESERVES

No attempt was made to estimate the small amount of ore reserves that might be present on the applicant's property on the basis of gamma logs. The small rim deposits on the Red Devil No. 1 claim appear to be mined out.

PROPOSED EXPLORATION AND COSTS

The applicant proposes a three-stage drilling program to explore the property. Stage I consists of 2,680 feet of core and non-core drilling in 28 holes (fig. 2). Stage II consists of 1,200 feet of drilling in six holes and Stage III 600 feet of drilling in six holes. The applicant's estimated costs are:

Independent contracts		
3,500 feet of non-core drilling at $2.50/ft.	$ 8,750.00	
980 feet of core drilling at $3/ft.	3,430.00	
4,480 feet of gamma-ray logging at $0.30/ft.	1,344.00	
Bulldozing 110 hrs. at $20/hr.	2,200.00	
Total independent contracts		$15,724.00
Labor and supervision		
Geologist, consulting	$ 500.00	
Supervising geologist	1,000.00	
Total labor and supervision		$ 1,500.00

Operating materials and supplies

Core boxes 95 at $1.25 each	$ 118.75	
Sample sacks 1,500 at $0.07 each	105.00	
Total operating materials and supplies		$ 223.75

Operating equipment

None

Rehabilitation and repairs

None

New buildings, improvements, installations

None

Miscellaneous

Assaying	$ 500.00

Contingencies

5 percent of $17,947.75	$ 897.25
Total estimated cost for 4,480 feet of drilling	$18,845.00
Cost per foot	$ 4.21
Government participation, 75 percent or	$14,133.75
Estimated time for completion	3 months

CONCLUSIONS AND RECOMMENDATIONS

The few known ore deposits in the vicinity of the Red Devil group of claims consist of small discontinuous pockets and rolls localized around fossilized logs. Such small pockets and rolls appear to be erratically distributed and apparently are not

restricted to one stratigraphic level. Closely spaced drilling by the applicant failed to extend the small deposit that was mined out on the Red Devil No. 1 claim, and production from the subject area has been small.

On the basis of the foregoing it is concluded that chances of finding ore bodies of significant size and grade are poor. Potential ore bodies that might be found on the applicant's claims would likely be small and discontinuous and would not add much to the domestic uranium production. It is recommended, therefore, that the application for Government assistance be denied.

2-28-56

DMEA
Date Rec'd.

FEB 20 1956

BUREAU OF MINES
Denver, Colorado

February 17, 1956

RECEIVED

FEB 23 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

From: Superintendent, Denver Experiment Station, Reg. III

Subject: Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company, Red Devil Mine, San Juan County, Utah

The subject application in the amount of $18,845.00 was received in this office on February 17.

An examination will be made and suitable report prepared by an engineer from the Denver or Grand Junction office.

John F. Shaw

cc: W. M. Traver (2)
E. W. Harshman
M. K. Salsbury
J. W. Kesler
J. F. Shaw
Sec. Op. Com (2)

DMEA
Date Rec'd.

FEB 20 1956

BUREAU OF MINES
Denver, Colorado

RECEIVED
FEB 23 1956

February 17, 1956

Memorandum

To: W. M. Traver, Executive Officer, DMEA Field Team, Reg. III

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John F. Shaw

cc: W. M. Traver (2)
K. B. Marshman
M. M. Salisbury
J. W. Hasler
J. F. Shaw
Sec. Op. Com. (2)

FEB 20 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
FEB 20 1956

February 16, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (With brochure)
J. W. Hasler

From: Field Team, Region III

Subject: Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company, Red Devil Mine, San Juan County, Utah

Enclosed is the subject application in the amount of $18,845.00. Also enclosed are a copy of a letter from the Chairman of the Operating Committee and memoranda of review of the application by the Uranium Commodity Members. A field examination and suitable report are requested.

In the event the field examiners concur that DMEA participation in exploration is warranted, please have the field examiners request the applicant to submit copies of bids on the proposed drilling from three independent contractors.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 4130
Harshman
Chron.

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
FEB 20 1956

February 16, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: J. F. Shaw (With brochure)
J. W. Hasler

From: Field Team, Region III

Subject: Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company, Red Devil Mine, San Juan County, Utah

Enclosed is the subject application in the amount of $18,845.00. Also enclosed are a copy of a letter from the Chairman of the Operating Committee and memoranda of review of the application by the Uranium Commodity Members. A field examination and suitable report are requested.

In the event the field examiners concur that DMEA participation in exploration is warranted, please have the field examiners request the applicant to submit copies of bids on the proposed drilling from three independent contractors.

DMEA Field Team, Region III

W. M. TRAVER,

By W. M. Traver
Executive Officer

Enclosures

HMC:ab

cc: Chair. Op. Comm. (2)
Docket 4130
Harshman
Chron.

700

FILE COPY
Surname:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

FEB 13 1956

Re: Docket No. DMEA-4130 (Uranium)
Liberty Oil and Uranium Company
Red Devil Mine
San Juan County, Utah

Dear Mr. Traver:

The captioned application is referred to Region III Field Team for investigation, a field examination, and recommendation. Two copies of the application were retained by your office.

Enclosed are copies of memoranda, dated February 3 and 7, 1956, from N. E. Nelson, USGS, and J. E. Crawford, USBM, respectively, relating to the subject application.

In the event the Field Team concludes that a project to explore the subject property is warranted, it should advise the Applicant that we will require six executed copies of an Owners' Consent to Lien signed by Edd E. Provensha, Arwin Provensha, Dan Provensha, Doug Carroll, and Jasper N. Durham, covering the claims to be encumbered.

The Field Team should also request the Applicant to submit copies of bids on the proposed drilling from three independent contractors.

Sincerely yours,

George C. Selfridge

Chairman, Operating Committee (JG)

Enclosures

APPROVED:

P. F. Yopes (JG)
Member, Bureau of Mines

Thor H. Kiilsgaard (JG)
Member, Geological Survey

FLKnouse/FHMurphy/izm 2-10-56
cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
Operating Committee
Messrs. JECrawford, Rm. 3641
THKiilsgaard, Rm. 5224
JOHosted, Rm. 3210, GSA

R.G.

700

FILE COPY
Surname:

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

FEB 13 1956

Liberty Oil and Uranium Company
250 Equitable Building
Denver, Colorado

Re: Docket No. DMEA-4130 (Uranium)
Red Devil Mine
San Juan County, Utah

Gentlemen:

The application for assistance in exploring the subject land, under the captioned docket number, has been reviewed by the Rare and Miscellaneous Metals Division of the Defense Minerals Exploration Administration. It has been referred for a field examination to the Executive Officer of Region III at the following address:

Mr. W. M. Traver
Executive Officer
DMEA Field Team, Region III
224 New Customhouse Building
Denver 2, Colorado

Any assistance you may give the members of the Field Team during the examination will be appreciated.

Sincerely yours,

C. O. Mitt[illegible]

Administrator

FLKnouse/FMMurphy/izm 2-10-56

cc to: Docket
Code 700
Mr. Knouse
Admr.'s Reading File
DMEA Field Team, Region III (2)

R.S.h.

2/7/56 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES
WASHINGTON 25, D. C.

February 7, 1956

Memorandum

To: Ernest William Ellis, DMEA Member
Uranium Commodity Committee, Room 4445

From: John E. Crawford, Bureau of Mines Member
Uranium Commodity Committee

Subject: Application for assistance, DMEA Docket 4130, Liberty Oil and Uranium Company, Red Devil group, San Juan County, Utah

I have reviewed the attached application for assistance, DMEA Docket 4130, Liberty Oil and Uranium Company, Red Devil group, San Juan County, Utah, dated January 26, 1956, and received in this office on January 30, 1956.

Some shipments of ore have been made from the Red Devil claim of Liberty Oil and Uranium Company, and underground exploration of the Red Devil claim was conducted in 1955. Also in 1955 some exploration drilling was carried out by the company on the Red Devil and Temp claims. A total of 21 holes were drilled, several of which were mineralized; and an interpretation of gamma ray log results indicated that hole No. 13 contained 2.5 feet of 0.38 percent U_3O_8 and 1.25 feet of 0.25 percent U_3O_8. Drill hole No. 14 was determined to have 5 feet of 0.71 percent U_3O_8. There have been 33 tons of ore shipped from the Red Devil claims with an average grade of 0.84 percent U_3O_8.

The company, in its application, states that "although mineralization is found in the workings and has been found in the drilling, there has been insufficient exploration to block out reserves." The applicant wishes to explore the claims by drilling 28 holes about 100 feet apart as Stage I; 12 holes about 100 feet apart as Stage II; and 6 holes about 100 feet apart as Stage III. Cost of the project is estimated at $18,845.

RECEIVED
FEB - 7 1956

The application undoubtedly merits consideration, and a field examination. Possibly some form of assistance may be warranted. Care should be taken, however, that exploration not be interrelated with development of the property, particularly since ore-grade material is known to exist in reasonable quantities on at least one or more of the claims.

The Field Team should be requested to consult with Mr. E. R. Gordon, Atomic Energy Commission, Grand Junction, Colorado.

John E. Crawford

John E. Crawford

Attachment

2/7/56 gla

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
FEB - 6 1956

February 3, 1956

Re: DMEA 4130
The Liberty Oil and
Uranium Company
Red Devil Mine
San Juan County, Utah
$18,845.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application.

The applicant requests Government participation in a 3-phase exploratory project consisting for the most part of:

Phase I			
Drilling 2,680 feet	$6,980.00		
Logging " "	804.00		
Road and site work	1,600.00		
		$9,384.00	
Phase II			
Drilling 1,200 feet	$3,500.00		
Logging " "	360.00		
Site clearing	400.00		
		$4,260.00	
Phase III			
Drilling 600 feet	$1,700.00		
Logging " "	180.00		
Site clearing	200.00		
		$2,080.00	
Total			$15,724.00
Miscellaneous			
Geologic consultant and supervision	$1,500.00		
Core boxes, sample sacks	223.75		
Assaying	500.00		
Contingencies	897.25		
		$3,121.00	
Total			$18,845.00

From two openings on the property 33 tons of ore assaying

% U_3O_8	% V_2O_5
0.84%	3.44

was shipped. The ore netted $3,871.45. The ore came from the upper bed of the Salt Wash member, which member is 300 feet thick in the immediate locality. Drilling 'back' of the mine openings with the exception of one hole failed to extend the underground ore showing. Hole No. 3, as shown on cross-section A-A, is a strongly mineralized hole and Holes 5, and 14 showed weak mineralization at the mine horizon but values are not given. Holes 5, 12, 13, and 14 are shown as strongly mineralized holes and 6, 15, and 16 as weakly mineralized in a Salt Wash sand about 100 feet below the upper or 'mine' bed. As interpreted from gamma-ray logs, Hole No. 13 cut $2\frac{1}{2}$ feet of 0.38% U_3O_8 and $1\frac{1}{2}$ feet of 0.25% U_3O_8 and Hole No. 14 cut 5 feet of 0.71% U_3O_8. The holes are 7 or 8 feet apart. No log values are given for nearby Holes 5, 6, and 15, nor are values given for the 'strong mineralization' shown in Hole 12, 60 feet to the north of the mine, and Holes 6 and 15. For 12 holes, well away from the mine area, no values are shown. For the holes near the mine opening a specific target was offered, for the other holes the target was very general and such is the case for the proposed row holes of Phase I, east and west of the mine.

The prospect area appears to be well up on the west flank of the La Sal Mountains intrusive mass in an area of relatively small production.

The Field Office considers a field examination probably advisable. I concur with that opinion and so recommend.

N. E. Nelson

N. E. Nelson

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WASHINGTON 25, D. C.

RECEIVED
FEB - 6 1956

February 3, 1956

Re: DMRA 4130
The Liberty Oil and
Uranium Company
Red Devil Mine
San Juan County, Utah
$18,845.00 - Uranium

Memorandum

To: E. W. Ellis, Defense Minerals Exploration Administration

From: N. E. Nelson, U. S. Geological Survey

Subject: Review of application.

The applicant requests Government participation in a 3-phase exploratory project consisting for the most part of:

Phase I			
Drilling 2,680 feet	$6,980.00		
Logging " "	804.00		
Road and site work	1,600.00		
		$9,384.00	
Phase II			
Drilling 1,200 feet	$3,500.00		
Logging " "	360.00		
Site clearing	400.00		
		$4,260.00	
Phase III			
Drilling 600 feet	$1,700.00		
Logging " "	180.00		
Site clearing	200.00		
		$2,080.00	
Total			$15,724.00
Miscellaneous			
Geologic consultant and supervision	$1,500.00		
Core boxes, sample sacks	223.75		
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The prospect area appears to be well up on the west flank of the La Sal Mountains intrusive mass in an area of relatively small production.

The Field Office considers a field examination probably advisable. I concur with that opinion and so recommend.

N. E. Nelson

N. E. Nelson

NENelson:jeh
G-2/3/56
cc: Director's reading 4212
Branch reading 4212
EMEA (3)
Docket file
J. E. Crawford, 3641
J. O. Hosted, 3210 GS

1/30/56 gla

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JAN 30 1956

January 26, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Field Team, Region III

Subject: Docket DMEA 4130 (Uranium), Liberty Oil and Uranium Company, Red Devil Group, San Juan County, Utah

Enclosed are the original and three copies of a joint memorandum of review of the subject application by members of the Grand Junction office.

It is recommended that a field examination be made on this property.

DMEA Field Team, Region III

W. M. Traver

By W. M. Traver
Executive Officer

Enclosures

IN REPLY REFER TO:

DMEA
Date Rec'd.
JAN 26 1956
BUREAU OF MINES
Denver, Colorado

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
P. O. BOX 360
GRAND JUNCTION, COLORADO

January 24, 1956

RECEIVED
JAN 30 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: J. William Hasler
M. H. Salsbury

Through: E. N. Harshman

Subject: Advisability of a field examination, Liberty Oil and Uranium Company, Red Devil group, San Juan County, Utah (DMEA 4130)

The subject claims lie in an area which has had a small amount of production. The R. O. Metals Mine, adjoining the Red Devil claims, has produced 32 tons averaging 0.68 percent U_3O_8 and 2.85 percent V_2O_5. The applicant has drilled several holes which contain ore-grade material, probe results only. Therefore, a field examination is probably advisable.

J. William Hasler, M.H.S.
J. William Hasler,
U. S. Geological Survey

M. H. Salsbury
M. H. Salsbury,
U. S. Bureau of Mines

MHS/mlr

Enclosures

January 17, 1956
Subject: DMEA-4130
Re: Exploration Assistance
Red Devil

Liberty Oil & Uranium Company
250 Equitable Building
Denver, Colorado

Gentlemen:

The receipt of your application dated December 30, 1955, for exploration assistance under the Defense Production Act of 1950, as amended, is hereby acknowledged.

Your application has been assigned Docket Number DMEA-4130 and referred to the Rare & Misc. Metals Division.

Kindly identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Robert E. Adams, Chief
Operations Control and
Statistics Division

January 17, 1956

Memorandum

To: Executive Officer, DMEA Field Team, Region III

From: Chief, Operation's Control and Statistics Division

Subject: Assignment of Docket Number

There is listed below the assigned docket number to an application recently received from Region III.

DMEA - 4130 Liberty Oil & Uranium Company

Robert E. Adams
Chief, Operation's Control
and Statistics Division

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

RECEIVED
JAN 16 1956

January 13, 1956

224 New Customhouse
Denver 2, Colorado

Memorandum

To: Secretary to the Operating Committee, DMEA

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Liberty Oil and Uranium Company, Red Devil Group, San Juan County, Utah

Enclosed are two copies of the subject application in the amount of $18,845.00. One copy has been forwarded to the Grand Junction office for their review and one copy is being retained in our file.

W. M. Traver

Enclosures

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION
WASHINGTON 25, D. C.

January 13, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
JAN 16 1956

Memorandum

To: J. W. Hasler

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Liberty Oil and Uranium Company, Red Devil Group, San Juan County, Utah

Enclosed is the subject application in the amount of $16,845.00. Will you please review and discuss the application with the Bureau of Mines representative and the Atomic Energy Commission and forward this office eight copies of the joint review of the application.

W. M. TRAVER,

W. M. Traver

Enclosure

HMC:ab

cc: Sec. Op. Comm. (2)
Harshman
Shaw (2)
Subject
Chron.

January 13, 1956

224 New Customhouse
Denver 2, Colorado

RECEIVED
JAN 16 1956

Memorandum

To: J. W. Hasler

From: Executive Officer, DMEA Field Team, Region III

Subject: Application for DMEA Aid (Uranium), Liberty Oil and Uranium Company, Red Devil Group, San Juan County, Utah

Enclosed is the subject application in the amount of $10,845.00. Will you please review and discuss the application with the Bureau of Mines representative and the Atomic Energy Commission and forward this office eight copies of the joint review of the application.

W. M. TRAVER,

W. M. Traver

Enclosure

HMC:ab

cc: Sec. Op. Comm. (2)
Harshman
Shaw (2)
Subject
Chron.

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DMEA Date Rec'd JAN 13 1956

RECEIVED JAN 16 1956 BUREAU OF MINES Denver, Colorado

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-4130
Metal or Mineral Uranium
Date Received 1-16-56
Estimated Cost $18,845.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: The Liberty Oil And Uranium Company
250 Equitable Building
Denver, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. (See attached sheet)

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. (See attached sheet)

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract (See attached sheet)

(*b*) State any mine name by which the property is known. Red Devil

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See attached appendix A, (contract of sale or purchase)

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. (See attached appendix A)

(*e*) If you own the land, describe any liens or encumbrances on it See attached appendix B (title opinion)

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See attached appendix B.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. (See attached sheet)

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. (See attached sheet)

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. (See attached sheet)

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. (See attached sheet)

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. (See attached sheet)

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, vanadium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. (See attached sheet)

(*c*) The work will start within 30 days and be completed within 3 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. (See attached sheet)

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[X] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated December 30, 1955

The Liberty Oil and Uranium Company
(Applicant)

By Howard L. Anderson
President

S. M. Goldberg
Secy & Treas

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

UNITED STATES DEPARTMENT OF THE INTERIOR

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RECEIVED
JAN 16 1956

RE: Application for aid in Exploration Project, pursuant to DMEA Order 1, under the defense production act of 1950, as amended

1 (b) The Liberty Oil and Uranium Company, a corporation incorporated in the State of Colorado

(c)

Howard L. Anderson	President	Equitable Building Denver, Colorado
Ewel H. Stone	Vice-President	530 Bellaire Street Denver, Colorado
Samuel M. Goldberg	Secretary and Treasurer	270 Hudson Street Denver, Colorado

3 (a) See enclosed plat of claims as surveyed by Peter M. Balogh.

The claims indluded in this application are:

Red Devil #1	AMp #1
Red Devil #2	Amp #2
Temp #1	R.O. Metals #219
Temp #2	R.O. Metals #220
Temp #3	R.O. Metals #211
Temp #4	R.O. Metals #212
Temp #5	
Temp #6	

R.O. Metals #211 & #212 lie adjacent and parallel to Red Devil #1 & #2 and extend 600 feet north of these claims.

(b) Red Devil Mine

(c) See enclosed appendix A, (contract of sale or purchase).

(d) See enclosed appendix A, (contract of sale or purchase).

(e) See enclosed appendix B, (title opinion).

(f) See enclosed appendix B. (title opinion).

4 (a) Ore shipments were made from the Red Devil Claims in the years 1951, 1952,1953 and 1954. Some underground mining exploration was carried out in 1955, but no shipments were made since the work was of an exploratory nature rather than development. The underground workings are shown on the Drill Hole Location Map. No survey was carried underground so the plat of the workings are open and can be examined. Some well mineralized showings still remain in the underground workings.

During the summer of 1955 a fairly extensive drilling program was carried out by Liberty Oil and Uranium Company on the Red Devil and Temp claims. The locations of the drill holes are shown on the enclosed Drill Hole Location Map. The deepest drilling was on Red Devil 1 #2 which was drilled to 300 feet. The average drilling depth was 100 to 150 feet. A total of 21 holes were drilled during this program. Because of the difficulty in obtaining core recovery and since the services of the high resolution gamma-ray logging equipment of Empire Logging Company was available, only a small amount of core drilling was attempted.

Results of the drilling program are shown graphically on the enclosed cross sections. Quite a number of the holes were mineralized. Drill holes #3, #5, and #6 showed mineralization. in the upper bed in which the present mining has taken place. Hole #3 was only drilled through this upper rim. Drill holes #5, 11, 12, 13, 14 and 15 showed mineralization in the next rim below the rim in which the mining has been carried on. This lower rim lies approximately 100 feet below the upper rim. Drill hole #13 has been interpreted by Empire Logging Company as

having $2\frac{1}{2}$ feet of 0.38% U_3O_8 and $1\frac{1}{4}$ feet of 0.25% U_3O_8; drill hole #14 as having 5 feet of 0.71% U_3O_8. The other mineralized holes indicate lower grades, although some thick mineralized zones were cut. Some of the more pertinent logs are included with this application.

One half mile to the south of the Red Devil mine is the R.O. Metals mine. Here a large high grade ore roll has been mined by stripping. Operations have been suspended on the R. O. Metals property due to the difficulty of operating during the winter months. This operation is open for inspection.

4(b) Past production is shown on the enclosed record of receipts (Appendix C) from United States Vanadium Company. The total of just over 33 tons had an average grade of 0.84% U_3O_8 and 3.44% V_2O_5. Although mineralization is found in the workings and has been found in the drilling, there has been insufficient exploration to block out ore reserves.

(c) The enclosed claim map gives the location of the claims. The area lies on the west flank of the La Sal mountains.

The claims lie on the outcrop of the Morrison formation. In the extreme northern portion of this prospect is an outcropping of an igneous body which is related to the La Sal Mountains which were formed during post-Eocene time.

The formations dip approximately 20 degrees to the west. Below the diorite porphyry igneous formation lies a thin bed of the Mancos shale formation followed by the Dakota sandstone formation. Beneath the Dakota lies the Morrison formation which is divided into two members. The upper Morrison member is the Salt Wash which generally consists of three sandstone layers separated by green to red shales. The cross bedded sandstones are lenticular

and of variable thickness with conglomeratic facies. Carbonized plant and animal remains are frequently found in the Salt Wash.

The Salt Wash member is the most productive uranium and vanadium ore-bearing unit on the Colorado Plateau. Ore may be found in any or all three of the sandstone rims. Locally, the Salt Wash member is approximately 300 feet thick.

A soil cover of from one to three feet covers the claim area. Because of the soil cover no faulting is evident, although faulting and fissuring would be believed to be present since the claims are so close to the La Sal Mountains intrusive. There is probably a fault with a few feet of displacement between holes 11 and 15 as is shown on cross section A-A. Except for this one case little or no other faulting or displacement of over a few feet can be found. Extensive fissuring is noted in the underground workings. The mineralization near hole #15 might be controlled by faulting although no evidence for this hypothesis exists.

The results of past exploration, the results of past development, and the unknown potential of this new uranium area all combine to make further exploration warranted on these claims.

4(d) The property is 20 road miles southeast of Moab, Utah. Of these 20 miles the first six are paved, the next 5 are gravel and the remaining 9 are unimproved dirt. The last 9 miles of road are steep and would have to be improved if production was planned. The R.O. Metals road has almost been completed on a good grade. This road will shorten the distance to the mine by at least one mile and will be easy to maintain. About a mile and a half of this road remains to be completed.

Although four roads cross the claims, additional drill roads must be completed before drilling can be started.

An Atomic Energy Commission buying station is located in

Moab. In the past the ore from the Red Devil has been shipped to Thompson, Utah--a distance of 60 miles from the property.

Supply and residence facilities are located in Moab, Utah.

4(e) There is no shortage of manpower, drilling contractors, or drilling supplies in the Moab area. The Utah Power and Light line runs within 5 miles of the property. Numerous streams in the claim area will furnish domestic and drilling water throughout the year.

The elevation and location of the property make it such that only major production should be contemplated during the winter months.

5(a) Uranium, vanadium

5(b) The exploratory work contemplated on the Red Devil group consists essentially of drilling. The project has been divided into three phases so that a logical succession of exploration work can be accomplished.

The enclosed claim map shows the approximate location of the proposed drill holes in Phase 1. There are 28 holes contemplated in Phase 1. These holes are 100 feet apart and are placed so that the farthest south fence of holes will intercept the favorable Salt Wash rim in 50 to 100 feet of drilling. The nine holes in the north fence will intercept both the upper and second rim with an average depth per hole of 150 feet.

Only the drilling for Phase 1 has been plotted. The results of Phase 1 will indicate the location of the Phase 2 drilling. A total of 12 holes averaging 100 feet per hole has been included as Phase 2 drilling. Any Phase 3 drilling will be guided by the results of Phase 1 and Phase 2 drilling. A total of 6 holes averaging 100 feet per hole has been included as Phase 3 drilling.

Road building will be necessary to adequately open the property for exploration drilling. Some additional road work will be required to prepare drill sites.

The drill sites will be laid out by a geologist so as to receive the most information with the least drill footage. A competent geologist will be in charge of the drilling project.

Two drill bids are included with this application.

5(d) Mr. Anderson, President; Mr. Stone, Vice-President; Mr. Goldberg, Secretary-Treasurer; and Mr. Hogan, Director will be in charge of general supervision of exploratory and development operations. All the above mentioned men have been engaged for many years in oil exploration and development.

The direct supervision of the exploration work will be under a competent geologist and engineer who is familiar with this area and these deposits.

6(a) Phase 1

Plug drilling	2400 feet @ $2.50/foot	$6000.00	
Core drilling	280 feet @ $3.50/foot	980.00	
Gamma-ray logging	2680 feet @ $ .30/foot	804.00	
Road and drill site building	80 hours @ $20.00/hour	1600.00	
			$9,384.00

Phase 2

Plug drilling	700 feet @ $2.50/foot	$1750.00	
Core drilling	500 feet @ $3.50/foot	1750.00	
Gamma-ray logging	1200 feet @ $ .30/foot	360.00	
Drill site clearing	20 hours @ $20.00/hr.	400.00	
			$4,260.00

Phase 3

Plug drilling	400 feet @ $2.50/foot	$1000.00
Core drilling	200 feet @ $3.50/foot	700.00

Phase 3 cont'd

Gamma-ray logging	600 feet @ $ .30/foot	$180.00	
Drill site clearing	10 hours @ $20.00/hr.	200.00	
			$2,080.00
			$15,724.00

6(b) Phase 1

Geologic consultant	$500.00	
Geologist--supervision	500.00	
		$1000.00

Phase 2

Geologist--supervision	$300.00	
		$300.00

Phase 3

Geologist--supervision	$200.00	
		$200.00
		$1500.00

6(c) Phase 1

Core boxes	25 @ $1.25	$31.25	
Sample sacks	1000 @ $ .07	70.00	
			$101.25

Phase 2

Core boxes	50 @ $1.25	$62.50	
Sample sacks	300 @ $ .07	21.00	
			$83.50

Phase 3

Core boxes	20 @ $1.25	$25.00	
Sample sacks	200 @ $ .07	14.00	
			$39.00
			$223.75

6(d) None contemplated

6(e) None

6(f) None

6(g) Phase 1

Assaying		$100.00	
Phase 2			
Assaying		$200.00	
Phase 3			
Assaying		$200.00	
			$500.00

6(h) Phase 1	5% of $10,585.25	$529.25	
Phase 2	5% of $4843.50	242.00	
Phase 3	5% of $2519.00	126.00	
			$897.25

Totals		
Phase 1	$11,114.50	
Phase 2	5,085.50	
Phase 3	2,645.00	
Grand Total		$18,845.00

Appendix A

RECEIVED
JAN 16 1959
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JAN 16 1959

CONTRACT OF SALE AND PURCHASE

WHEREAS, on June 30, 1955, EDD E. ROVONSHA, ARWIN ROVONSHA, DAN ROVONSHA, DOUG CARROLL and JASPER N. DURHAM, As Sellers, entered into an agreement to sell THE LIBERTY OIL AND URANIUM COMPANY, a Colorado Corporation, as Buyer, certain unpatented lode mining claims situated in the County of San Juan, State of Utah, and recorded in the office of the County Recorder of said county and therein being more particularly designated and recorded as follows;

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #210	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

Claims R. O. Metals #211 and R. O. Metals #212 extend 600 feet north of Red Devil Claim No. 1 and Red Devil Claim No. 2, as said Red Devil Claims #1 and #2 appear on surveys of June 23, 1955 and July 1955 of Peter M. Balogh, Registered Surveyor, of Moab, Utah, and

WHEREAS, the Buyer, through its engineers, employees and agents, has since the date of said contract, conducted operations on said property for the purpose of determining whether or not the property contains deposits of uranium ore sufficient to justify the installation of machinery and equipment for the operation of the property as a commercial mine, and

WHEREAS, the results of the Buyer's examination, mining and drilling operations have failed to locate sufficient ore for a mining operation, and

WHEREAS, the Buyer has faithfully performed to this date all the terms of the above mentioned contract but said Buyer does not desire to proceed further under said contract, and the Sellers have agreed to execute a new contract of sale with the Buyer incorporating new and different terms and conditions;

NOW, THEREFORE, in consideration of the premises and covenants herein contained to be made, kept and performed, it is agreed as follows:

1. The Sellers agree to sell and the Buyer agrees to purchase the following unpatented lode mining claims situated in the County of San Juan, State of Utah, and recorded in the office of the County Recorder of said county and therein being more particularly designated and recorded as follows:

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #219	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

Claims R. O. Metals #211 and R. O. Metals #212 extend 600 feet north of Red Devil Claim No. 1 and Red Devil Claim No. 2, as said Red Devil Claims #1 and #2 appear on surveys of June 23, 1955 and July 1955 of Peter M. Balegh, Registered Surveyor, of Moab, Utah.

2. The Buyer agrees to pay the Sellers, as the purchase price of said property, the sum of $250,000.00, in the following manner, to-wit:

(a) The Sellers acknowledge receipt of $10,000.00 paid on June 30, 1955, and hereby credit the said $10,000.00 on said purchase price.

(b) The sum of Ten Thousand Dollars ($10,000.00) shall be paid to Sellers on or before December 1, 1956, and the sum of Ten Thousand Dollars ($10,000.00) shall be paid to the Sellers on or before the 1st day of December each and every year thereafter until the total purchase price of $250,000.00 has been paid as herein provided.

(c) It is agreed that Sellers shall receive 15% of the gross mill returns on all ore shipped from the premises including any bonus, premiums, allowances, or other benefits. These payments shall be applied upon the next annual minimum payment

due under this contract until said payment is paid, then the surplus received by the Sellers in any twelve month period of December 1st to December 1st shall then be credited on the last final minimum payments remaining unpaid on said contract.

3. In the event the Buyer elects to terminate this contract, then in that event, all payments made to Sellers shall be retained by the Sellers as payment in full for liquidated damages for the Buyer's default.

4. Contemporaneously herewith the Sellers shall execute Quit Claim Deeds to the Buyer, conveying good and merchantable title to the premises and the same shall be placed in escrow at the First National Bank of Moab, Utah, together with appropriate instructions for delivery of the Deeds to the Buyer or to such person as it may designate, upon payment to the Sellers, or deposited for their credit with said Bank of the purchase price, or the balance due thereon, as aforesaid, and also instructing said Bank that if said purchase price, or any part thereof, shall not have been paid, or deposited, on the dates provided therefor, then upon demand of the Sellers, the said Bank shall return said deeds to the Sellers.

5. The Buyer has since June 30, 1955 conducted an examination and a drilling program on the said property, and it is agreed that the Buyer will immediately file its application with the Defense Minerals Exploration Administration for aid in further and additional drilling and the Sellers agree to join in said application.

6. The Buyer shall carry on all development and mining operations in strict conformity with all federal, state and local laws and regulations pertaining thereto and shall maintain Workman's Compensation Insurance and shall pay all state and federal taxes and exactions including all production and mine occupation taxes levied upon the minerals mined and sold and the ad valorem tax or anything out of operations upon the mining property said hereunder and shall at all times save and keep harmless the Sellers of and from any and all liability of every kind and character, including, but not limited to mechanic's liens for labor and materials supplied, or both, arising out of the operations of the Buyer hereunder. The Buyer agrees to hold the Sellers harmless from liability arising out of the operation

of the Buyer and to indemnify the Sellers against all damage, loss, cost and expenses on account thereof. The Buyer shall post upon a conspicuous place near any work on said claims, a notice providing in effect that it and not the Sellers shall be liable for any debts, liabilities or claims of any kind of third persons arising out of the Buyer's operations under this contract.

7. The Buyer covenants and agrees to do and perform within the time provided by law, the annual labor and assessment work required for the retention of possessory rights upon the aforesaid mining claims and to make and file affidavits as required by law within the time provided therefor.

8. This agreement is binding upon and shall inure to the benefit of the heirs, administrators, executors and lawful assigns of both parties hereto; provided, however, that this contract may not be assigned by the Buyer without written consent of the Sellers, but Sellers shall not unreasonably withhold their consent.

9. In the event that the Buyer shall surrender or forfeit the mining claims under this contract to the Sellers, the Buyer shall deliver to the Sellers all data, reports, drill records and survey mappings.

10. It is specifically understood by and between the parties hereto that time is of the essence of this contract.

IN WITNESS WHEREOF the parties hereto have signed this instrument this 27th day of October, 1955.

Edd E. Provonsha
EDD E. PROVONSHA

Arwin Provonsha
ARWIN PROVONSHA
By Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

Dan Provonsha
DAN PROVONSHA
BY Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

D. L. Carroll
DOUG CARROLL
By Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

Jasper N. Durham
JASPER N. DURHAM

SELLERS

THE LIBERTY OIL AND URANIUM COMPANY

By W. H. Hogsed

BUYER

STATE OF UTAH)
) ss
COUNTY OF GRAND)

On this _____ day of October, 1955, personally appeared before me EDD E. PROVONSHA, who being by me duly sworn did say that he signed the above instrument and that he is the attorney in fact of ARWIN PROVONSHA, DAN PROVONSHA and DOUG CARROLL, and that said instrument was signed in behalf of said Arwin Provonsha, Dan Provonsha and Doug Carroll by authority, and said EDD E. PROVONSHA acknowledged to me that he as such attorney in fact executed the same.

My Commission expires

_____

_____
Notary Public, Residing in Grand County

STATE OF ~~UTAH~~ Colorado)
) ss
City & COUNTY OF ~~GRAND~~ Denver)

On the 28th day of October, 1955, personally appeared before me JASPER N. DURHAM, who being by me duly sworn did say that he signed the above instrument.

My Commission expires
February 3, 1959

Ruth L. Felipi
Notary Public, Residing in ~~Grand County~~ Denver, Colo

STATE OF Colorado)
) ss
City & COUNTY OF Denver)

On this 28th day of October, 1955, personally appeared before me W. H. Hogsed, who being by me duly sworn, did say that he is the President of THE LIBERTY OIL AND URANIUM COMPANY, and that said instrument was signed in behalf of said corporation by authority of its bylaws, and said W. H. Hogsed acknowledged to me that said corporation executed the same.

My Commission expires
February 3, 1959

Ruth L. Felipi
Notary Public, Residing at Denver, Colo

Appendix B

EDWIN A. WILLIAMS

W. DAVID McCLAIN
ATTORNEY AT LAW
SUITE 250 EQUITABLE BUILDING
DENVER, COLORADO

RECEIVED
JAN 16 1956

November 25 1955

The Liberty Oil and Uranium Company
246 Equitable Bldg
Denver, Colo

Gentlemen:

This is to certify that I have examined the records in the office of the Clerk and Recorder of San Juan County, State of Utah, in regard to the following described mining claims:

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #219	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

all located in San Juan County, State of Utah.

The Title

From such examination I have determined that the title to

Temp #1	Temp #5	
Temp #2	Temp #6	
Temp #3	Amp #1	and
Temp #4	Amp #2	

Lode Mining Claims is vested in EDD PROVONSHA, DAN PROVONSHA, ARWIN PROVONSHA and BOBBY DOUG CARROLL;

That the title to

Red Devil #1 and
Red Devil #2

Lode Mining Claims is vested in HAROLD PROVONSHA, DAN PROVONSHA and EDD PROVONSHA;

That the title to

R. O. Metals #219
R. O. Metals #220
R. O. Metals #211 and
R. O. Metals #212

Lode Mining Claims is vested in JASPER N. DURHAM.

Encumbrances

There are no encumbrances of record affecting the title to the above described real property.

Remarks

Surveys of these claims were made on June 23 1955 and in July 1955 by Peter M. Balogh, Registered Surveyor of Moab, Utah, showing the exact boundaries, dimensions and locations of the above described Lode Mining Claims and reference thereto is hereby made for greater certainty in these particulars. From records on file assessment work has been completed.

On June 30 1955 and on October 27 1955, Edd E. Provonsha, Arwin Provonsha, Dan Provonsha, Doug Carroll and Jasper N. Durham as owners and sellers, entered into agreements with The Liberty Oil and Uranium Company, a Colorado Corporation, as buyer, for the sale of the above mentioned Claims. These agreements have not been placed of record, however, I am advised that a copy of the agreement of October 27 1955 will be filed of record with the Clerk and Recorder of San Juan County, Utah.

I have determined that The Liberty Oil and Uranium Company is in actual physical possession of the property.

Very truly yours,

W. David McClain

WDM-F

Appendix C

UNITED STATES VANADIUM COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

P. O. BOX 692
RIFLE, COLORADO

RECEIVED
JAN 16 1956

July 28, 1955

Mr. W. David McClain
250 Equitable Building
Denver, Colorado

Dear Mr. McClain:

Enclosed is a record of the receipts of ore shipped to us from the Red Devil Claims to our Thompson, Utah receiving station.

We trust that this information will be sufficient to meet your needs.

Sincerely,

UNITED STATES VANADIUM COMPANY

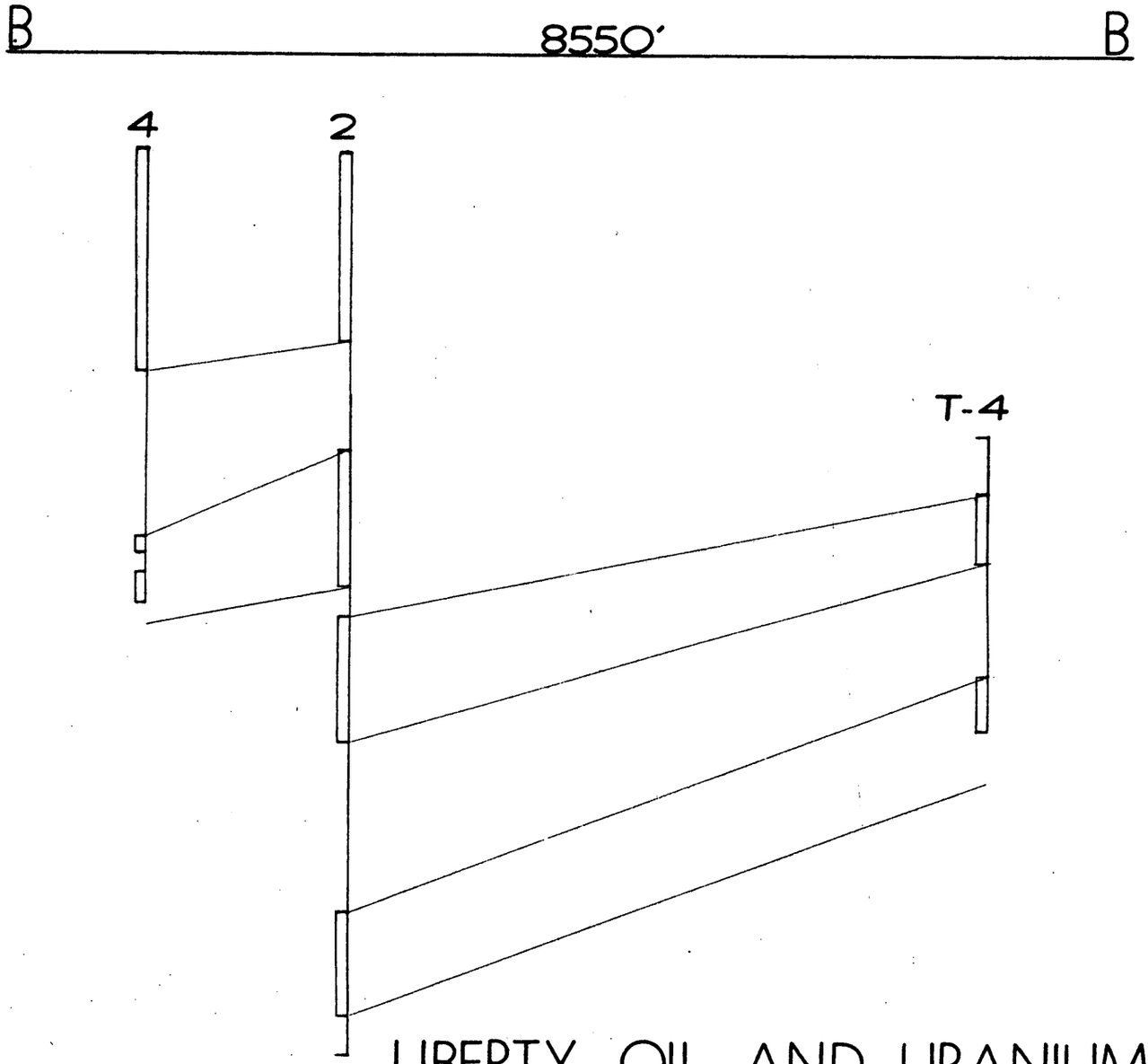
HCPeterson

HCPeterson:pdd

Enclosure

Date	Liquidation Number	Dry Pounds	AUSOO	AV205	AUSOO	AV205	Value
7-[illegible]-51	2021	8771.04	0.44	2.69	39.70	235.76	$ 259.96
[illegible]	2022	1442.[illegible]	1.69	[illegible]	27.[illegible]	69.41	2[illegible]
[illegible]-51	[illegible]	[illegible].47	1.14	3.38	65.29	114.58	492.77
8-6-51	2284	947.09	2.02	6.20	19.14	58.76	113.19
11-[illegible]-51	2599	620.60	2.10	6.95	13.00	43.15	80.83
8-7-52	3403	1343.71	0.79	4.16	10.64	56.29	69.45
10-22-52	3756	1240.79	1.71	6.05	21.22	75.10	123.31
6-23-53	4701	4332.68	1.36	3.77	67.04	185.89	392.51
7-7-53	4738	1076.58	2.18	5.43	20.91	101.20	230.25
7-23-53	4832	6441.76	1.17	3.39	70.42	204.52	414.93
8-6-53	5040	5180.12	0.96	6.21	49.51	270.29	331.20
10-6-53	5145	5637.04	0.34	2.35	19.23	134.64	137.26
7-21-54	5526	1383.20	2.95	9.96	41.21	83.53	201.66
8-6-54	5564	5237.40	1.00	4.07	52.57	213.98	328.80
8-24-54	5667	11648.40	0.80	2.52	67.26	293.10	426.43
8-7-54	5417	4255.60	0.53	3.14	22.71	134.57	154.99

Total 66,597.95 3871.45

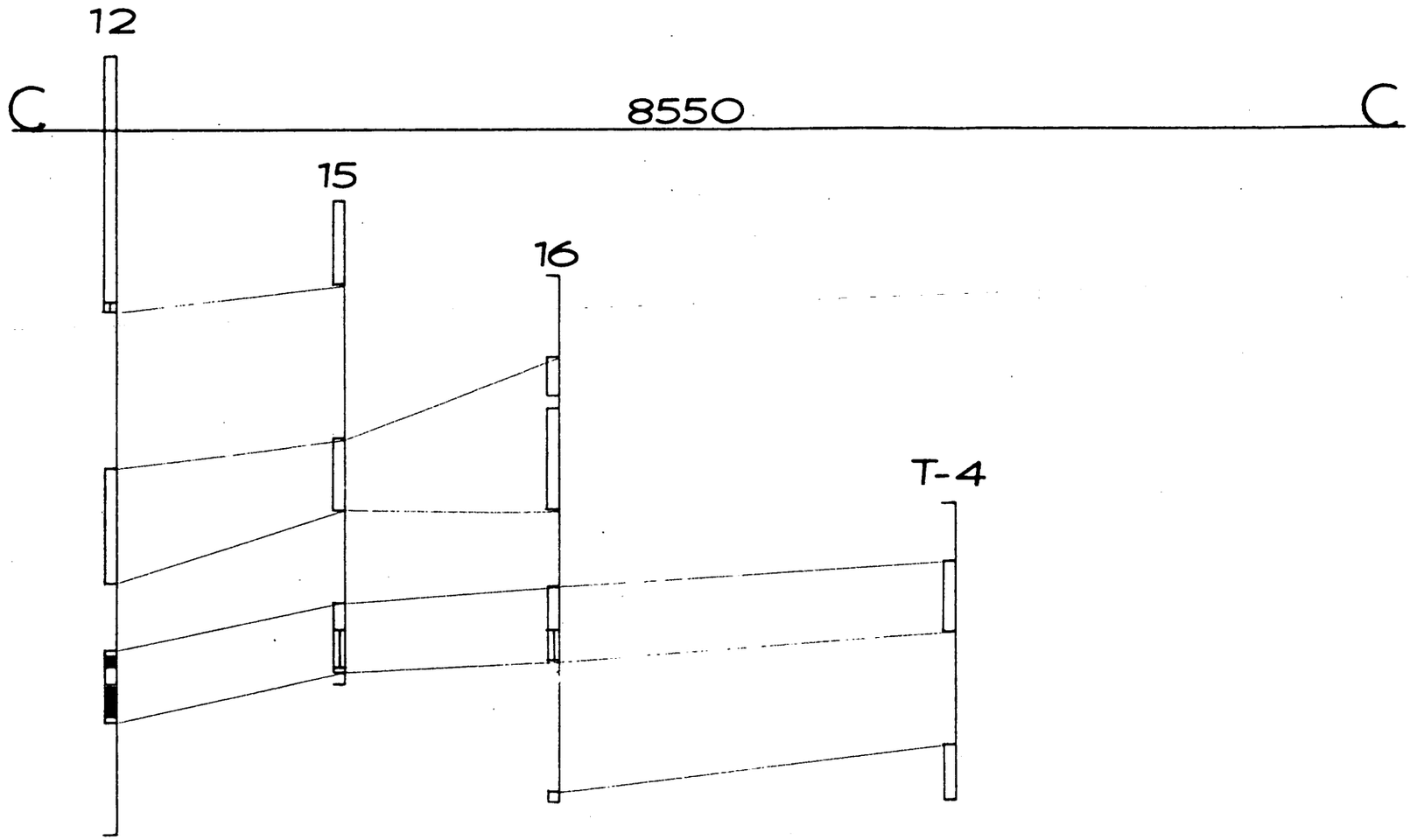


LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION B - B

sandstone

scale 1"=40'



sandstone
weak mineralization
strong mineralization

scale 1"=40'

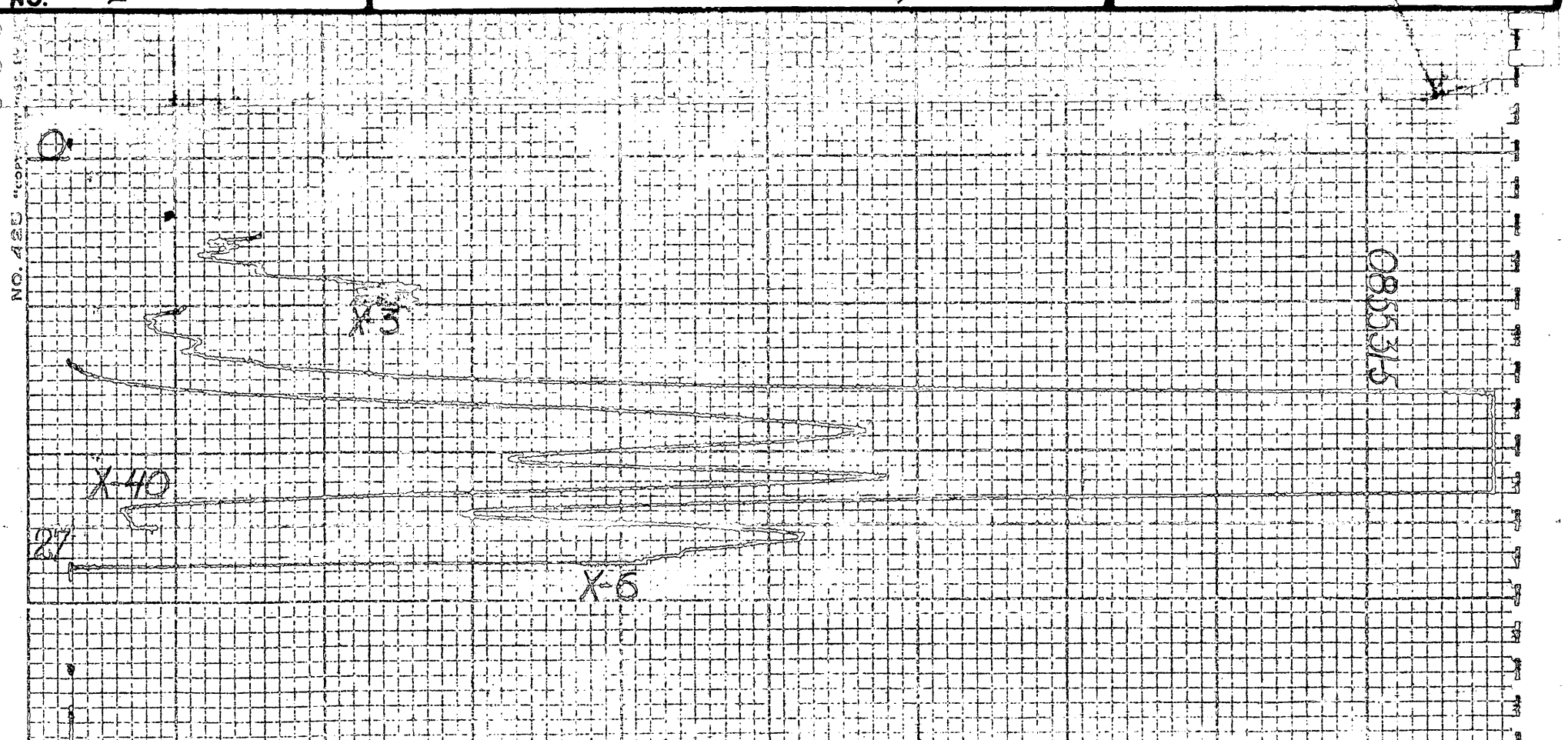
LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION C-C

RECEIVED
JAN 16 1956

Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas.	Location of Well
FIRST READING 5'	WELL #3	
LAST READING 22'	LOCATION 1a Sec 13 Twp	
FOOTAGE MEASURED 22'	COUNTY	
MAX. DEPTH REACHED 22'	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



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JAN 16 1956

MF-103
(Revised April 1952)

UNITED STATES DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS EXPLORATION ADMINISTRATION

Form Approved.
Budget Bureau No. 42-R1035.2.

DMEA
Date Rec'd
JAN 13 1956
BUREAU OF MINES
Denver, Colorado
RECEIVED
JAN 16 1956

APPLICATION FOR AID IN AN EXPLORATION PROJECT, PURSUANT TO DMEA ORDER 1, UNDER THE DEFENSE PRODUCTION ACT OF 1950, AS AMENDED

Not to be filled in by applicant

Docket No. DMEA-4130
Metal or Mineral Uranium
Date Received 1-16-56
Estimated Cost $18,845.00
Participation (Government %)

INSTRUCTIONS

1. *Name of applicant.*—(*a*) State here your full legal name, in the form in which you will wish to contract, and your mailing address: The Liberty Oil And Uranium Company
250 Equitable Building
Denver, Colorado

(*b*) If other than an individual, add to your name above whether a corporation, partnership, etc., and the name of the State in which incorporated or otherwise organized. (see attached sheet)

(*c*) If a corporation, add to above statement, titles, names and addresses of officers. (see attached sheet)

(*d*) If a partnership, add to the above statement the names and addresses of all partners.

2. *General.*—Read DMEA Order 1, "Government Aid in Defense Exploration Projects," before completing this application. Submit this application and all accompanying papers in quadruplicate (four copies), with your name and address on each sheet of the application and on all accompanying papers. Where sufficient space is not provided on the form for all required information, state it on an accompanying paper, with a reference in each case to the instruction to which it refers by number. Comply with all applicable instructions; or, if not applicable, so state. File the application with Defense Minerals Exploration Administration, Department of the Interior, Washington 25, D. C., or with the nearest field executive officer thereof.

3. *Applicant's property rights.*—(*a*) State the legal description of the land upon which you wish to explore, including all land which you possess or control that may be benefited by the exploration, and excluding any land or interest in land which is not to be included in the exploration project contract (see attached sheet)

(*b*) State any mine name by which the property is known. Red Devil

(*c*) State your interest in the land, whether owner, lessee, purchaser under contract, or otherwise See attached appendix A, (contract of sale or purchase)

(*d*) If you are not the owner, submit with this application a copy of the lease, contract, or other document under which you control the property. (See attached appendix A)

(*e*) If you own the land, describe any liens or encumbrances on it See attached appendix B (title opinion)

(*f*) If the land consists of unpatented claims, add to the description above, the book and page numbers for each recorded location notice. See attached appendix B.

4. *Physical description.*—(*a*) Describe in detail any mining or exploration operations which have been or now are being conducted upon the land, including existing mine workings and production facilities. State your interest, if any, in such operations. Also describe accessibility of mine workings for examination purposes. (See attached sheet)

(*b*) State past and current production, and ore reserves, if any, giving quantities and grades. (See attached sheet)

(*c*) Describe the geologic features of the property, including mineralization, type of deposit (vein, bedded, etc.), and your reasons for wishing to explore. Illustrate with maps or sketches. Send with your application (but not necessarily as a part of it) any geologic or engineering report, assay maps, or other technologic information you may have, indicating on each whether you require its return to you. (See attached sheet)

(*d*) State the facts with respect to the accessibility of the project: Access roads, distances to shipping, supply and residence points. (See attached sheet)

(*e*) State the availability of manpower, materials, supplies, equipment, water, and power. (See attached sheet)

5. *The exploration project.*—(*a*) State the mineral or minerals for which you wish to explore Uranium, vanadium

(*b*) Describe fully the proposed work, including a map or sketch of the property showing a plan (and cross sections if needed) of any present mine workings, and the location of the proposed exploration work as related to such features as contacts, veins, ore-bearing beds, etc. (see attached sheet)

(*c*) The work will start within 30 days and be completed within 3 months from the date of an exploration project contract.

(*d*) State the operating experience and background of the applicant with relation to the ability to carry out such exploration project, and also that of the person or persons who will supervise the operations. (see attached sheet)

6. *Estimate of costs.*—Furnish a detailed estimate of the costs of the proposed work (you will have to use a separate sheet), under the following headings. Add the totals under all headings to give the estimated total cost of the project:

(*a*) *Independent contracts.*—(Note.—If the applicant does not intend to let any of the work to contractors, write "none" after this item. To the extent that the work is to be contracted, do not repeat the cost of the contract-work in subsequent items.) State the cost of any proposed independent contracts for the performance of all or any part of the work, expressed in terms of units of work (such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, per cubic yard of material moved, etc.).

(*b*) *Labor, supervision, consultants.*—Include an itemized schedule of numbers, classes and rates of wages, salaries or fees for necessary labor, supervision and engineering and geological consultants.

(*c*) *Operating materials and supplies.*—Furnish an itemized list, including items of equipment costing less than $50 each, and power, water and fuel.

(*d*) *Operating equipment.*—Furnish an itemized list of any operating equipment to be rented, purchased, or which is owned and will be furnished by the Operator, with the estimated rental, purchase price, or suggested use-allowance based on present value, as the case may be.

(*e*) *Rehabilitation and repairs.*—Furnish a detailed list showing the cost of any necessary initial rehabilitation or repairs of existing buildings, installations, fixtures, and movable operating equipment, now owned by the Operator and which will be devoted to the exploration project.

(*f*) *New buildings, improvements, installations.*—Furnish a detailed list showing the cost of any necessary buildings, fixed improvements, or installations to be purchased, installed or constructed for the benefit of the exploration project.

(*g*) *Miscellaneous.*—Furnish a detailed list showing the cost of repairs to and maintenance of operating equipment (not including initial rehabilitation or repairs of the Operator's equipment), analytical work, accounting, workmen's compensation and employers' liability insurance, and payroll taxes.

(*h*) *Contingencies.*—Give an estimate of any necessary allowances for contingencies not included in the costs stated above.

NOTE.—No items of general overhead, corporate management, interest, taxes (other than payroll and sales taxes), or any other indirect costs, or work performed or costs incurred before the date of the contract, should be included in the estimate of costs.

7. (*a*) Are you prepared to furnish your share of the cost of the proposed project in accordance with the regulations on Government participation (Sec. 7, DMEA No. 1)? Yes

(*b*) How do you propose to furnish your share of the costs?

[x] Money [ ] Use of equipment owned by you [ ] Other

Explain in detail on acompanying paper.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief.

Dated December 30, 1955

The Liberty Oil and Uranium Company
(Applicant)

By Howard L. Anderson
President

S. M. Goldberg
Secy + Treas

Title 18, U. S. Code (Crimes), Section 1001, makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

U. S. GOVERNMENT PRINTING OFFICE 16—66551-1

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UNITED STATES DEPARTMENT OF THE INTERIOR JAN 16 1956

DEFENSE MINERALS EXPLORATION ADMINISTRATION

RE: Application for aid in Exploration Project, pursuant to DMEA Order 1, under the defense production act of 1950, as amended

1 (b) The Liberty Oil and Uranium Company, a corporation incorporated in the State of Colorado

(c) Howard L. Anderson President Equitable Building Denver, Colorado

Ewel H. Stone Vice-President 530 Bellaire Street Denver, Colorado

Samuel M. Goldberg Secretary and Treasurer 270 Hudson Street Denver, Colorado

3 (a) See enclosed plat of claims as surveyed by Peter M. Balogh. The claims included in this application are:

Red Devil #1	Amp #1
Red Devil #2	Amp #2
Temp #1	R.O. Metals 219
Temp #2	R.O. Metals #220
Temp 3	R.O. Metals 211
Temp #4	R.O. Metals 212
Temp #5	
Temp #6	

R.O. Metals #211 & #212 lie adjacent and parallel to Red Devil #1 & #2 and extend 600 feet north of these claims.

(b) Red Devil Mine

(c) See enclosed appendix A, (contract of sale or purchase).

(d) See enclosed appendix A, (contract of sale or purchase).

(e) See enclosed appendix B, (title opinion).

(f) See enclosed appendix B. (title opinion).

4 (a) Ore shipments were made from the Red Devil Claims in the years 1951, 1952,1953 and 1954. Some underground mining exploration was carried out in 1955, but no shipments were made since the work was of an exploratory nature rather than development. The underground workings are shown on the Drill Hole Location Map. No survey was carried underground so the plat of the workings are open and can be examined. Some well mineralized showings still remain in the underground workings.

During the summer of 1955 a fairly extensive drilling program was carried out by Liberty Oil and Uranium Company on the Red Devil and Temp claims. The locations of the drill holes are shown on the enclosed Drill Hole Location Map. The deepest drilling was on Red Devil 1 #2 which was drilled to 300 feet. The average drilling depth was 100 to 150 feet. A total of 21 holes were drilled during this program. Because of the difficulty in obtaining core recovery and since the services of the high resolution gamma-ray logging equipment of Empire Logging Company was available, only a small amount of core drilling was attempted.

Results of the drilling program are shown graphically on the enclosed cross sections. Quite a number of the holes were mineralized. Drill holes #3, #5, and #6 showed mineralization in the upper bed in which the present mining has taken place. Hole #3 was only drilled through this upper rim. Drill holes #5, 11, 12, 13, 14 and 15 showed mineralization in the next rim below the rim in which the mining has been carried on. This lower rim lies approximately 100 feet below the upper rim. Drill hole #13 has been interpreted by Empire Logging Company as

having $2\frac{1}{2}$ feet of 0.38% U_3O_8 and $1\frac{1}{4}$ feet of 0.25% U_3O_8; drill hole #14 as having 5 feet of 0.71% U_3O_8. The other mineralized holes indicate lower grades, although some thick mineralized zones were cut. Some of the more pertinent logs are included with this application.

One half mile to the south of the Red Devil mine is the R.O. Metals mine. Here a large high grade ore roll has been mined by stripping. Operations have been suspended on the R. O. Metals property due to the difficulty of operating during the winter months. This operation is open for inspection.

4(b) Past production is shown on the enclosed record of receipts (Appendix C) from United States Vanadium Company. The total of just over 33 tons had an average grade of 0.84% U_3O_8 and 3.44% V_2O_5. Although mineralization is found in the workings and has been found in the drilling, there has been insufficient exploration to block out ore reserves.

(c) The enclosed claim map gives the location of the claims. The area lies on the west flank of the La Sal mountains.

The claims lie on the outcrop of the Morrison formation. In the extreme northern portion of this prospect is an outcropping of an igneous body which is related to the La Sal Mountains which were formed during post-Eocene time.

The formations dip approximately 20 degrees to the west. Below the diorite porphyry igneous formation lies a thin bed of the Mancos shale formation followed by the Dakota sandstone formation. Beneath the Dakota lies the Morrison formation which is divided into two members. The upper Morrison member is the Salt Wash which generally consists of three sandstone layers separated by green to red shales. The cross bedded sandstones are lenticular

and of variable thickness with conglomeratic facies. Carbonized plant and animal remains are frequently found in the Salt Wash.

The Salt Wash member is the most productive uranium and vanadium ore-bearing unit on the Colorado Plateau. Ore may be found in any or all three of the sandstone rims. Locally, the Salt Wash member is approximately 300 feet thick.

A soil cover of from one to three feet covers the claim area. Because of the soil cover no faulting is evident, although faulting and fissuring would be believed to be present since the claims are so close to the La Sal Mountains intrusive. There is probably a fault with a few feet of displacement between holes 11 and 15 as is shown on cross section A-A. Except for this one case little or no other faulting or displacement of over a few feet can be found. Extensive fissuring is noted in the underground workings. The mineralization near hole #15 might be controlled by faulting although no evidence for this hypothesis exists.

The results of past exploration, the results of past development, and the unknown potential of this new uranium area all combine to make further exploration warranted on these claims.

4(d) The property is 20 road miles southeast of Moab, Utah. Of these 20 miles the first six are paved, the next 5 are gravel and the remaining 9 are unimproved dirt. The last 9 miles of road are steep and would have to be improved if production was planned. The R.O. Metals road has almost been completed on a good grade. This road will shorten the distance to the mine by at least one mile and will be easy to maintain. About a mile and a half of this road remains to be completed.

Although four roads cross the claims, additional drill roads must be completed before drilling can be started.

An Atomic Energy Commission buying station is located in

Moab. In the past the ore from the Red Devil has been shipped to Thompson, Utah--a distance of 60 miles from the property.

Supply and residence facilities are located in Moab, Utah.

4(e) There is no shortage of manpower, drilling contractors, or drilling supplies in the Moab area. The Utah Power and Light line runs within 5 miles of the property. Numerous streams in the claim area will furnish domestic and drilling water throughout the year.

The elevation and location of the property make it such that only major production should be contemplated during the winter months.

5(a) Uranium, vanadium

5(b) The exploratory work contemplated on the Red Devil group consists essentially of drilling. The project has been divided into three phases so that a logical succession of exploration work can be accomplished.

The enclosed claim map shows the approximate location of the proposed drill holes in Phase 1. There are 28 holes contemplated in Phase 1. These holes are 100 feet apart and are placed so that the farthest south fence of holes will intercept the favorable Salt Wash rim in 50 to 100 feet of drilling. The nine holes in the north fence will intercept both the upper and second rim with an average depth per hole of 150 feet.

Only the drilling for Phase 1 has been plotted. The results of Phase 1 will indicate the location of the Phase 2 drilling. A total of 12 holes averaging 100 feet per hole has been included as Phase 2 drilling. Any Phase 3 drilling will be guided by the results of Phase 1 and Phase 2 drilling. A total of 6 holes averaging 100 feet per hole has been included as Phase 3 drilling.

Road building will be necessary to adequately open the property for exploration drilling. Some additional road work will be required to prepare drill sites.

The drill sites will be laid out by a geologist so as to receive the most information with the least drill footage. A competent geologist will be in charge of the drilling project.

Two drill bids are included with this application.

5(d) Mr. Anderson, President; Mr. Stone, Vice-President; Mr. Goldberg, Secretary-Treasurer; and Mr. Hogan, Director will be in charge of general supervision of exploratory and development operations. All the above mentioned men have been engaged for many years in oil exploration and development.

The direct supervision of the exploration work will be under a competent geologist and engineer who is familiar with this area and these deposits.

6(a) Phase 1

Plug drilling	2400 feet @ $2.50/foot	$6000.00	
Core drilling	280 feet @ $3.50/foot	980.00	
Gamma-ray logging	2680 feet @ $ .30/foot	804.00	
Road and drill site building	80 hours @ $20.00/hour	1600.00	
			$9,384.00

Phase 2

Plug drilling	700 feet @ $2.50/foot	$1750.00	
Core drilling	500 feet @ $3.50/foot	1750.00	
Gamma-ray logging	1200 feet @ $ .30/foot	360.00	
Drill site clearing	20 hours @ $20.00/hr.	400.00	
			$4,260.00

Phase 3

Plug drilling	400 feet @ $2.50/foot	$1000.00
Core drilling	200 feet @ $3.50/foot	700.00

Phase 3 cont'd

Gamma-ray logging	600 feet @ $ .30/foot	$180.00	
Drill site clearing	10 hours @ $20.00/hr.	200.00	
			$2,080.00
			$15,724.00

6(b) Phase 1

Geologic consultant	$500.00	
Geologist--supervision	500.00	
		$1000.00

Phase 2

Geologist--supervision	$300.00	
		$300.00

Phase 3

Geologist--supervision	$200.00	
		$200.00
		$1500.00

6(c) Phase 1

Core boxes	25 @ $1.25	$31.25	
Sample sacks	1000 @ $ .07	70.00	
			$101.25

Phase 2

Core boxes	50 @ $1.25	$62.50	
Sample sacks	300 @ $ .07	21.00	
			$83.50

Phase 3

Core boxes	20 @ $1.25	$25.00	
Sample sacks	200 @ $ .07	14.00	
			$39.00
			$223.75

6(d) None contemplated

6(e) None

6(f) None

6(g) Phase 1

Assaying	$100.00	
Phase 2		
Assaying	$200.00	
Phase 3		
Assaying	$200.00	$500.00

6(h) Phase 1	5% of $10,585.25	$529.25	
Phase 2	5% of $4843.50	242.00	
Phase 3	5% of $2519.00	126.00	$897.25

Totals

Phase 1	$11,114.50	
Phase 2	5,085.50	
Phase 3	2,645.00	
Grand Total		$18,845.00

Appendix A

CONTRACT OF SALE AND PURCHASE

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WHEREAS, on June 30, 1955, EDO E. ROVENSHA, ANNIE ROVENSHA, DAN ROVENSHA, DOUG CARROLL and JASPER H. DUNHAM, As Sellers, entered into an agreement to sell THE LEHRKY OIL AND URANIUM COMPANY, a Colorado Corporation, as Buyer, certain unpatented lode mining claims situated in the County of San Juan, State of Utah, and recorded in the office of the County Recorder of said county and therein being more particularly designated and recorded as follows:

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #219	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

Claims R. O. Metals #211 and R. O. Metals #212 extend 600 feet north of Red Devil Claim No. 1 and Red Devil Claim No. 2, as said Red Devil Claims #1 and #2 appear on surveys of June 23, 1955 and July 1955 of Peter M. Balogh, Registered Surveyor, of Moab, Utah, and

WHEREAS, the Buyer, through its engineers, employees and agents, has since the date of said contract, conducted operations on said property for the purpose of determining whether or not the property contains deposits of uranium ore sufficient to justify the installation of machinery and equipment for the operation of the property as a commercial mine, and

WHEREAS, the results of the Buyer's examination, mining and drilling operations have failed to locate sufficient ore for a mining operation, and

WHEREAS, the Buyer has faithfully performed to this date all the terms of the above mentioned contract but said Buyer does not desire to proceed further under said contract, and the Sellers have agreed to execute a new contract of sale with the Buyer incorporating new and different terms and conditions;

RECEIVED
JAN 16 1956

NOW, THEREFORE, in consideration of the premises and covenants herein contained to be made, kept and performed, it is agreed as follows:

1. The Sellers agree to sell and the Buyer agrees to purchase the following unpatented lode mining claims situated in the County of San Juan, State of Utah, and recorded in the office of the County Recorder of said county and therein being more particularly designated and recorded as follows:

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #219	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

Claims R. O. Metals #211 and R. O. Metals #212 extend 600 feet north of Red Devil Claim No. 1 and Red Devil Claim No. 2, as said Red Devil Claims #1 and #2 appear on surveys of June 23, 1955 and July 1955 of Peter M. Balogh, Registered Surveyor, of Moab, Utah.

2. The Buyer agrees to pay the Sellers, as the purchase price of said property, the sum of $250,000.00, in the following manner, to-wit:

(a) The Sellers acknowledge receipt of $10,000.00 paid on June 30, 1955, and hereby credit the said $10,000.00 on said purchase price.

(b) The sum of Ten Thousand Dollars ($10,000.00) shall be paid to Sellers on or before December 1, 1956, and the sum of Ten Thousand Dollars ($10,000.00) shall be paid to the Sellers on or before the 1st day of December each and every year thereafter until the total purchase price of $250,000.00 has been paid as herein provided.

(c) It is agreed that Sellers shall receive 15% of the gross mill returns on all ore shipped from the premises, including any bonus, premiums, allowances, or other benefits. These payments shall be applied upon the next annual minimum payment

due under this contract until said payment is paid, then the surplus received by the Sellers in any twelve month period of December 1st to December 1st shall then be credited on the last final minimum payments remaining unpaid on said contract.

3. In the event the Buyer elects to terminate this contract, then in that event, all payments made to Sellers shall be retained by the Sellers as payment in full for liquidated damages for the Buyer's default.

4. Contemporaneously herewith the Sellers shall execute Quit Claim Deeds to the Buyer, conveying good and merchantable title to the premises and the same shall be placed in escrow at the First National Bank of Moab, Utah, together with appropriate instructions for delivery of the Deeds to the Buyer or to such person as it may designate, upon payment to the Sellers, or deposited for their credit with said Bank of the purchase price, or the balance due thereon, as aforesaid, and also instructing said Bank that if said purchase price, or any part thereof, shall not have been paid, or deposited, on the dates provided therefor, then upon demand of the Sellers, the said Bank shall return said deeds to the Sellers.

5. The Buyer has since June 30, 1955 conducted an examination and a drilling program on the said property, and it is agreed that the Buyer will immediately file its application with the Defense Minerals Exploration Administration for aid in further and additional drilling and the Sellers agree to join in said application.

6. The Buyer shall carry on all development and mining operations in strict conformity with all federal, state and local laws and regulations pertaining thereto and shall maintain Workman's Compensation Insurance and shall pay all state and federal taxes and exactions including all production and mine occupation taxes levied upon the minerals mined and sold and the ad valorem tax or anything out of operations upon the mining property sold hereunder and shall at all times save and keep harmless the Sellers of and from any and all liability of every kind and character, including, but not limited to mechanic's liens for labor and materials supplied, or both, arising out of the operations of the Buyer hereunder. The Buyer agrees to hold the Sellers harmless from liability arising out of the operation

of the Buyer and to indemnify the Sellers against all damage, loss, cost and expenses on account thereof. The Buyer shall post upon a conspicuous place near any work on said claims, a notice providing in effect that it and not the Sellers shall be liable for any debts, liabilities or claims of any kind of third persons arising out of the Buyer's operations under this contract.

7. The Buyer covenants and agrees to do and perform within the time provided by law, the annual labor and assessment work required for the retention of possessory rights upon the aforesaid mining claims and to make and file affidavits as required by law within the time provided therefor.

8. This agreement is binding upon and shall inure to the benefit of the heirs, administrators, executors and lawful assigns of both parties hereto; provided, however, that this contract may not be assigned by the Buyer without written consent of the Sellers, but Sellers shall not unreasonably withhold their consent.

9. In the event that the Buyer shall surrender or forfeit the mining claims under this contract to the Sellers, the Buyer shall deliver to the Sellers all data, reports, drill records and survey mappings.

10. It is specifically understood by and between the parties hereto that time is of the essence of this contract.

IN WITNESS WHEREOF the parties hereto have signed this instrument this 27th day of October, 1955.

Edd E. Provonsha
EDD E. PROVONSHA

Arwin Provonsha
ARWIN PROVONSHA
By Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

Dan Provonsha
DAN PROVONSHA
BY Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

D. J. Carroll
DOUG CARROLL
By Edd E. Provonsha
Edd E. Provonsha, Attorney in Fact

Jasper N. Durham
JASPER N. DURHAM

SELLERS

THE LIBERTY OIL AND URANIUM COMPANY

By W. H. Hogan

BUYER

STATE OF UTAH)
) ss
COUNTY OF GRAND)

On this 27th day of October, 1955, personally appeared before me EDD E. PROVONSHA, who being by me duly sworn did say that he signed the above instrument and that he is the attorney in fact of ARWIN PROVONSHA, DAN PROVONSHA and DOUG CARROLL, and that said instrument was signed in behalf of said Arwin Provonsha, Dan Provonsha and Doug Carroll by authority, and said EDD E. PROVONSHA acknowledged to me that he as such attorney in fact executed the same.

My Commission expires
1-2-59

Notary Public, Residing in Grand County

STATE OF ~~UTAH~~ Colorado)
) ss
City & COUNTY OF ~~GRAND~~ Denver)

On the 28th day of October, 1955, personally appeared before me JASPER N. DURHAM, who being by me duly sworn did say that he signed the above instrument.

My Commission expires
January 3, 1959

Notary Public, Residing in ~~Grand County~~ Denver, Colo

STATE OF Colorado)
City & COUNTY OF Denver) ss

On this 28th day of October, 1955, personally appeared before me W. H. Hogan, who being by me duly sworn, did say that he is ~~the~~ a director of THE LIBERTY OIL AND URANIUM COMPANY, and that said instrument was signed in behalf of said corporation by authority of its bylaws, and said W. H. Hogan acknowledged to me that said corporation executed the same.

My Commission expires
January 3, 1959

Notary Public, Residing at Denver, Colo

Appendix B

RECEIVED
JAN 16 1956

November 25 1955

The Liberty Oil and Uranium Company
246 Equitable Bldg
Denver, Colo

COPY

Gentlemen:

This is to certify that I have examined the records in the office of the Clerk and Recorder of San Juan County, State of Utah, in regard to the following described mining claims:

NAME	BOOK	PAGE
Red Devil #1	R-1	375
Red Devil #2	R-1	375-376
Temp #1	81	532
Temp #2	81	533
Temp #3	81	533
Temp #4	81	534
Temp #5	81	534
Temp #6	81	535
Amp #1	81	538
Amp #2	81	538
R. O. Metals #219	M-117	439
R. O. Metals #220	M-117	439
R. O. Metals #211	M-37	102
R. O. Metals #212	M-37	103

all located in San Juan County, State of Utah.

The Title

From such examination I have determined that the title to

Temp #1	Temp #5	
Temp #2	Temp #6	
Temp #3	Amp #1	and
Temp #4	Amp #2	

Lode Mining Claims is vested in EDD PROVONSHA, DAN PROVONSHA, ARWIN PROVONSHA and BOBBY DOUG CARROLL;

That the title to

Red Devil #1 and
Red Devil #2

Lode Mining Claims is vested in HAROLD PROVONSHA, DAN PROVONSHA and EDD PROVONSHA;

That the title to

R. O. Metals #219
R. O. Metals #220
R. O. Metals #211 and
R. O. Metals #212

Lode Mining Claims is vested in JASPER N. DURHAM.

Encumbrances

There are no encumbrances of record affecting the title to the above described real property.

Remarks

Surveys of these claims were made on June 23 1955 and in July 1955 by Peter M. Balogh, Registered Surveyor of Moab, Utah, showing the exact boundaries, dimensions and locations of the above described Lode Mining Claims and reference thereto is hereby made for greater certainty in these particulars. From records on file assessment work has been completed.

On June 30 1955 and on October 27 1955, Edd E. Provonsha, Arwin Provonsha, Dan Provonsha, Doug Carroll and Jasper N. Durham as owners and sellers, entered into agreements with The Liberty Oil and Uranium Company, a Colorado Corporation, as buyer, for the sale of the above mentioned Claims. These agreements have not been placed of record, however, I am advised that a copy of the agreement of October 27 1955 will be filed of record with the Clerk and Recorder of San Juan County, Utah.

I have determined that The Liberty Oil and Uranium Company is in actual physical possession of the property.

Very truly yours,

W. David McClain

WDM-F

COPY

Appemdix C

[illegible]
A DIVISION OF [illegible]

P. O. [illegible]
RIFLE, COLORADO

RECEIVED
JAN 16 1956

July 29, 1955

Mr. W. David McClain
250 Equitable Building
Denver, Colorado

Dear Mr. McClain:

Enclosed is a record of the receipts of ore shipped to us from the Ace Jovil Claim to our Mexican, Mississippian section.

We trust that this information will be sufficient to cover your needs.

Sincerely,

[illegible]

[illegible]

[illegible]

Enclosure

Date	Manifestos Number	Dry Pounds	[illegible]	[illegible]	[illegible]	[illegible]	Value
3-5-51	[illegible]	8771.00	0.44	2.49	39.70	111.78	$ 159.93
7-24-51	[illegible]	1442.07	1.00	5.00	07.20	80.41	162.32
8-8-51	[illegible]	3901.47	1.14	3.08	68.29	234.54	423.77
9-6-51	[illegible]	947.00	2.02	6.72	13.14	56.76	112.14
11-1-51	[illegible]	620.00	2.46	0.03	13.00	49.15	63.63
[illegible]	[illegible]	1360.71	0.70	4.20	10.00	95.20	97.09
12-20-51	[illegible]	1243.75	1.71	0.03	21.22	73.50	130.11
2-20-52	[illegible]	4317.60	1.30	3.77	67.04	114.00	192.31
2-6-52	[illegible]	1576.52	2.18	5.43	20.51	101.00	204.25
3-21-52	[illegible]	6041.76	1.17	3.20	70.42	204.51	414.03
5-6-52	[illegible]	5103.12	0.96	3.21	40.53	279.23	331.20
10-4-52	[illegible]	5537.04	0.84	2.20	10.23	194.64	157.23
7-21-53	[illegible]	1363.03	2.05	5.90	41.21	99.51	201.63
6-4-54	[illegible]	5257.00	1.00	4.07	52.07	211.00	324.60
6-24-54	[illegible]	11643.00	0.09	2.52	07.26	293.16	423.43
9-7-54	[illegible]	4235.60	0.53	3.14	32.71	134.57	194.00

Total 66,597.95

3871.45

November 28, 1955

RECEIVED
JAN 16 1956

Mr. D. F. Coelbaugh, Agent
Liberty Oil and Uranium
Jones Road
Golden, Colorado

RE: Liberty Oil and Uranium
Drilling Bid

Dear Sir:

Apex Exploration Company submits the following bid for drilling of 5,000 feet of hole on your claims located in Nells Canyon, San Juan County, Utah:

PLUG DRILLING

5,000 feet of hole @ $2.50 /ft.

CORING

All coring at $5.00 /ft.

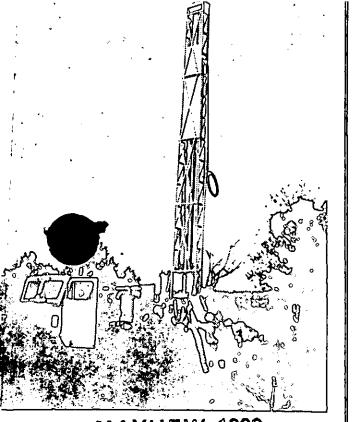
Gamma ray logging of the drill holes is included in the above price.

Apex Exploration Co.

By:

E. J. Mayhew
Partner

EJM:jj



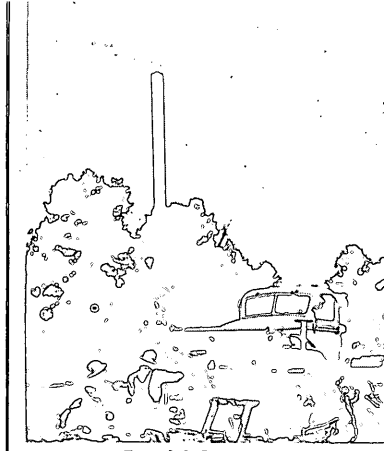
MAYHEW-1000
Diamond Core Drills
PLUG DRILLING
AIR AND WATER
POWERFUL PULLDOWNS

"Why Pay More?
We'll Get The Core"

UTAH DRILLING CO.

CONTRACT URANIUM DRILLERS

MOAB, UTAH



WAGON DRILLS
GYROFLOW COMPRESSORS
ANGLE DRILLING

BILL OWEN, Manager
P. O. Box 586

Phones: ALpine 3-4356
ALpine 3-4367

RECEIVED
JAN 16 1956

December 2, 1955

Liberty Uranium & Oil
Box 688
c/o E. J. Mayhew
Moab, Utah

Dear Sir:

The following is a drilling bid on your properties in the La Sal Mountains:

	Plugging	Coring
0'-100'	2.50	3.50
100'-200'	3.00	4.00
200'-300'	3.25	4.25
300'-400'	3.75	4.75

It is assumed that locations will be normally accessible to drilling equipment and if such is not the case, Liberty Oil & Uranium will be responsible for caterpillar expenses incident thereto; otherwise, there will be no moving charges.

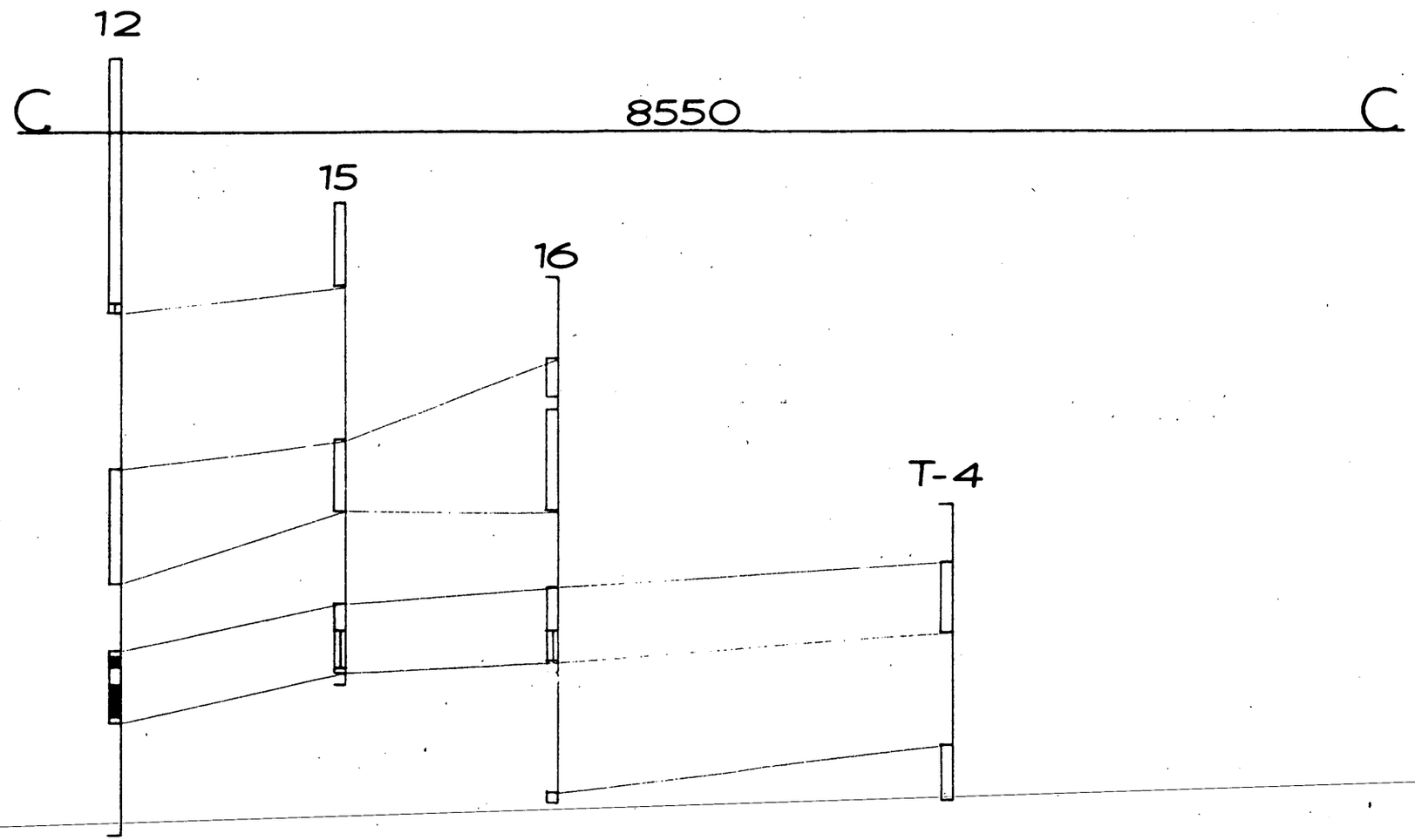
We appreciate the opportunity to bid on your drilling needs and sincerely hope we can be of service to you.

Very truly yours,

Charles H. Folwell

Charles H. Folwell

CHF:jr



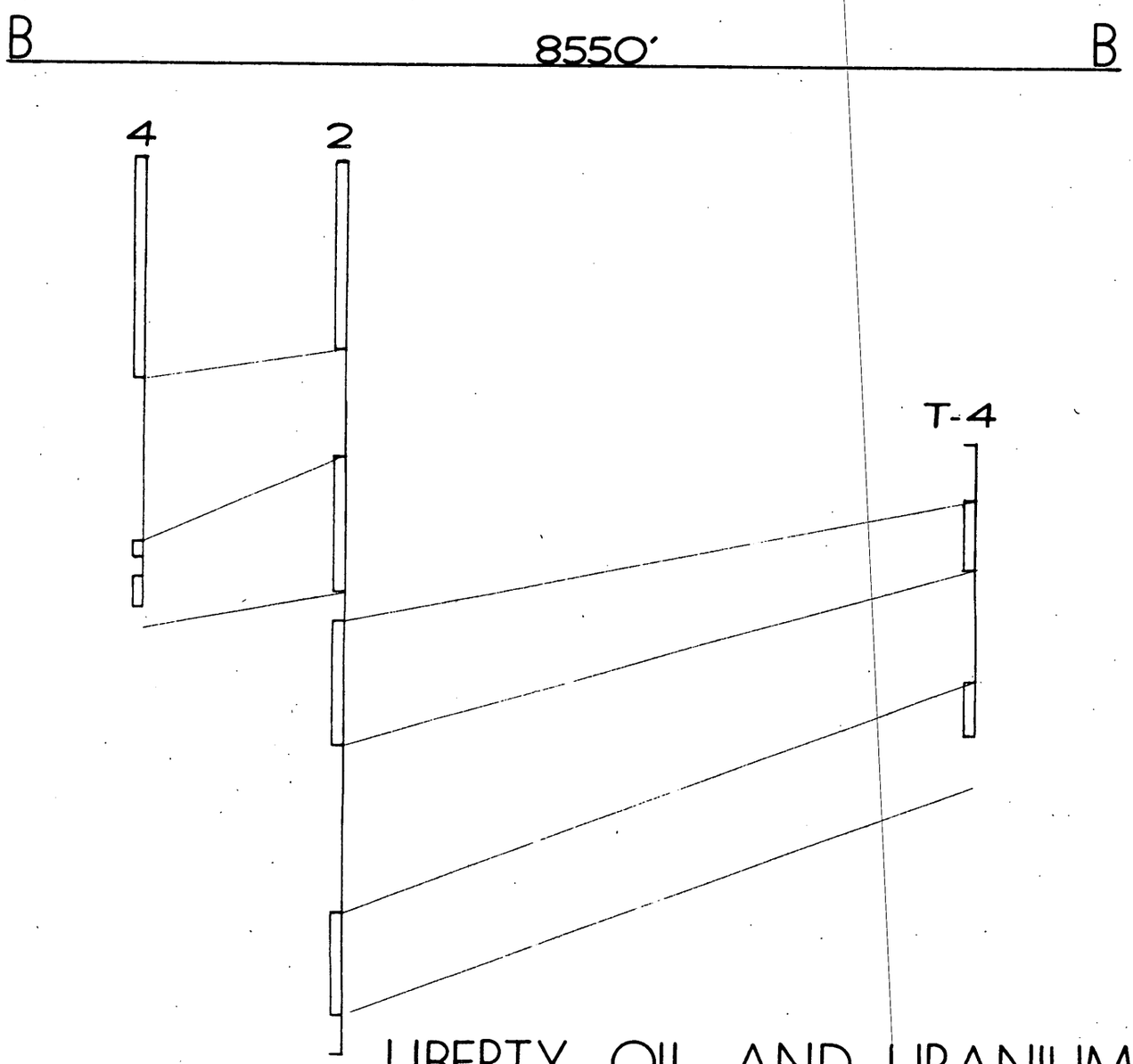
sandstone
weak mineralization
strong mineralization

scale 1"=40'

LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION C-C

RECEIVED
JAN 16 1956



LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION B - B

sandstone

scale 1"=40'

RECEIVED
JAN 16 1956

UNITED STATES
DEPARTMENT OF THE INTERIOR
DEFENSE MINERALS
EXPLORATION ADMINISTRATION
[redacted]

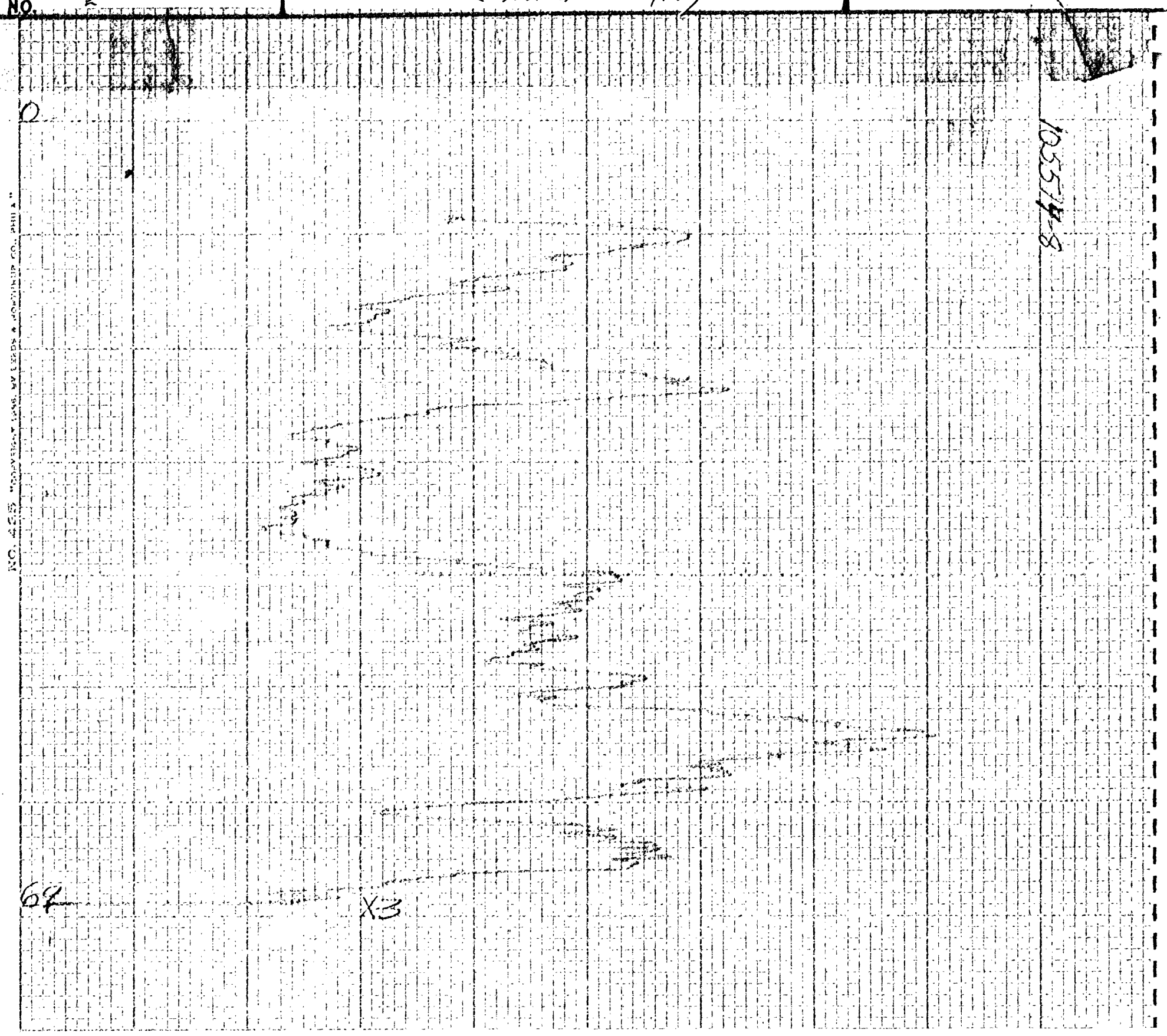
OFFICIAL BUSINESS

U. S. GEOLOGICAL SURVEY
SOUTH 157 HOWARD ST.
SPOKANE 4, WASHINGTON

Mr. George C. Selfridge
Chairman, Operating Committee
Defense Minerals Explor. Admin.
Department of the Interior
Washington 25, D. C.

Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Sol Oil & Gas	Location of Well
FIRST READING 8'	WELL T2	
LAST READING 69	LOCATION La Sal Utah	
FOOTAGE MEASURED 69	COUNTY	
MAX. DEPTH REACHED 69	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



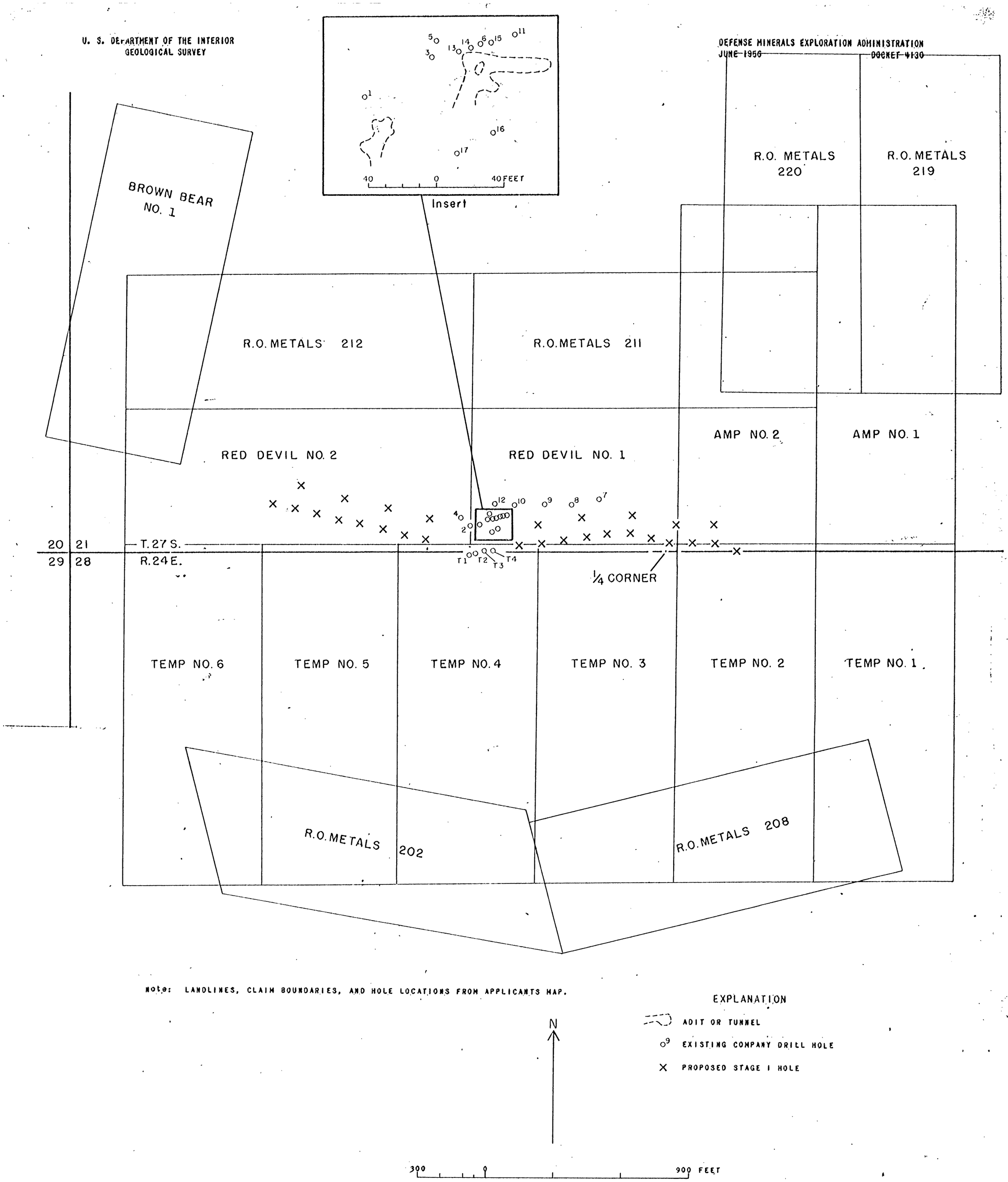
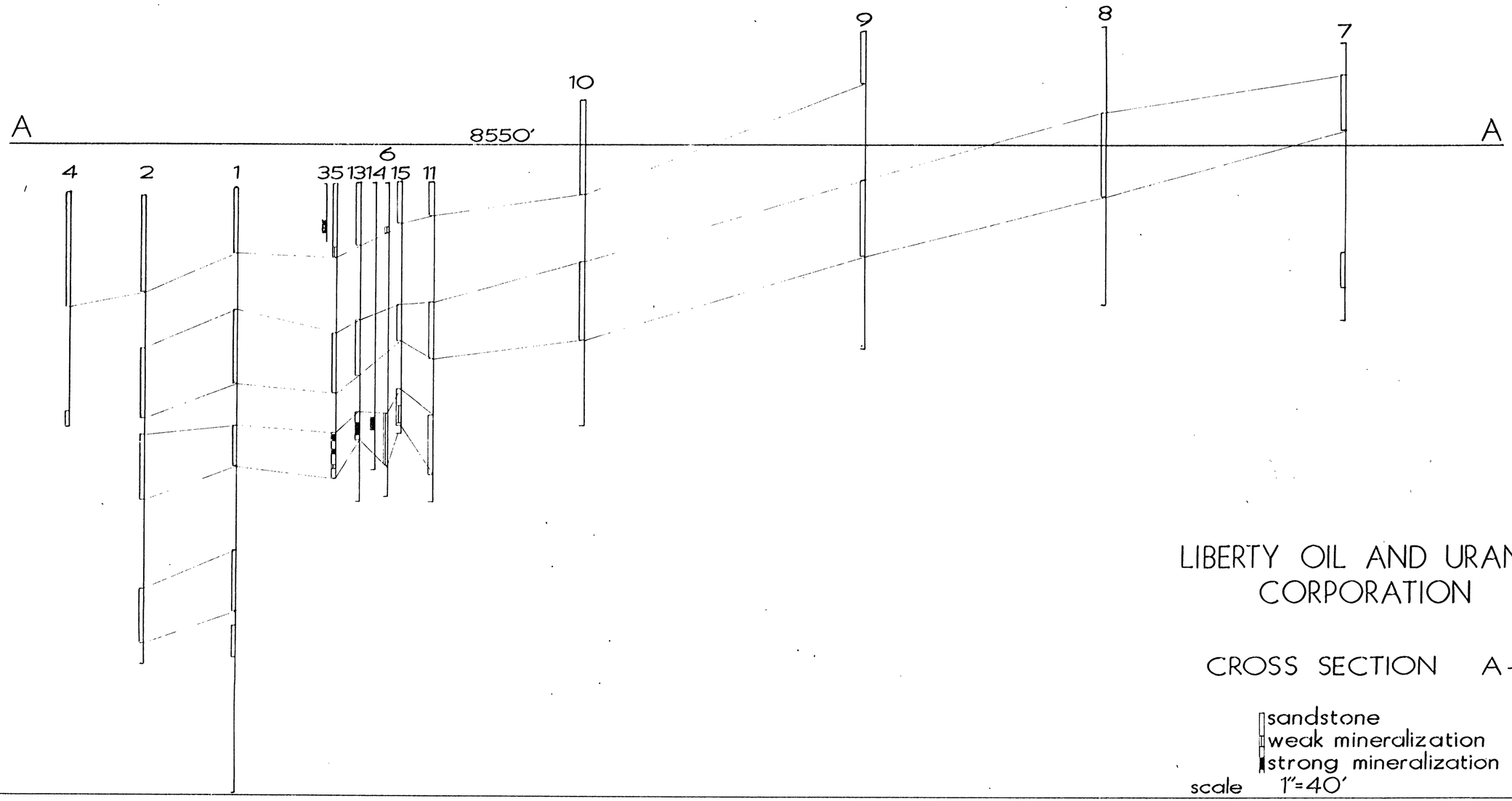


Figure 2. CLAIM MAP SHOWING RED DEVIL GROUP OF CLAIMS, EXISTING DRILL HOLES AND PROPOSED STAGE I DRILL HOLES, LIBERTY OIL AND URANIUM COMPANY, SECTIONS 21 AND 28, T. 27 S., R. 24 E., SAN JUAN COUNTY, UTAH.

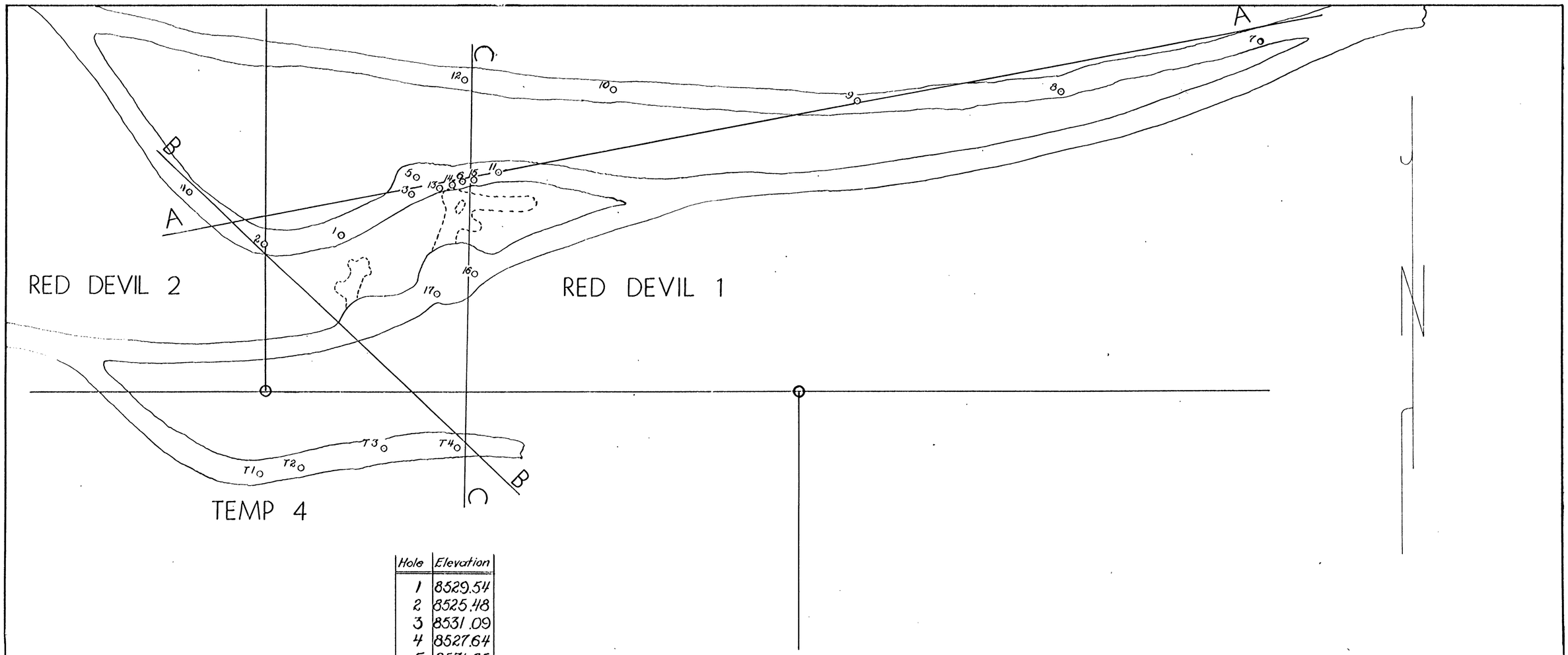


LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION A-A

sandstone
weak mineralization
strong mineralization

scale 1"=40'



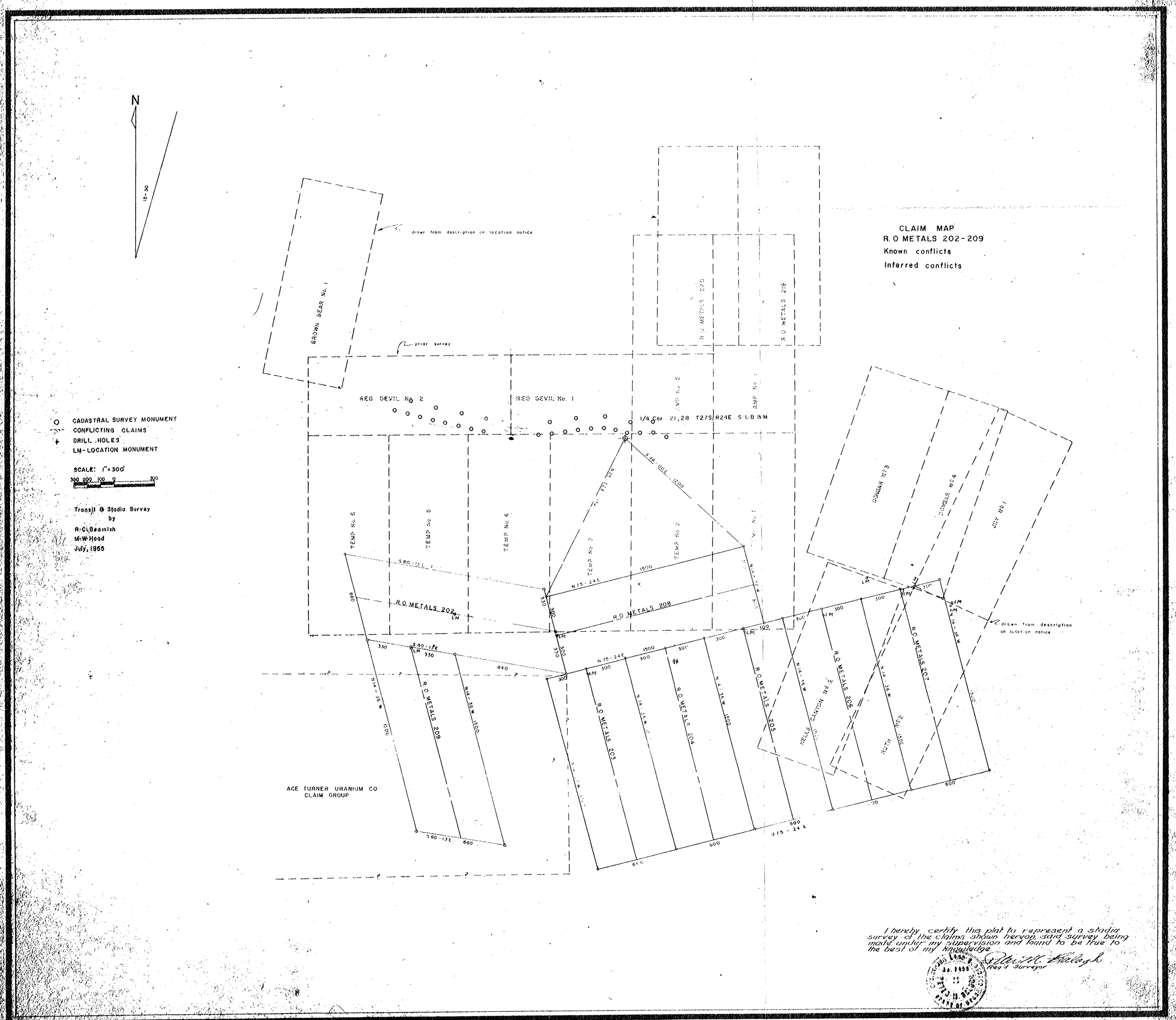
Hole	Elevation
1	8529.54
2	8525.48
3	8531.09
4	8527.64
5	8531.65
6	8531.89
7	8598.71
8	8605.71
9	8603.60
10	8572.10
11	8532.14
12	8567.70
13	8531.72
14	8531.75
15	8532.14
16	8513.37
17	8512.37
T1	8453.28
T2	8455.28
T3	8455.98
T4	8456.58

LIBERTY OIL AND URANIUM CORPORATION

DRILL HOLE LOCATION MAP

scale 0 100'

roads not surveyed

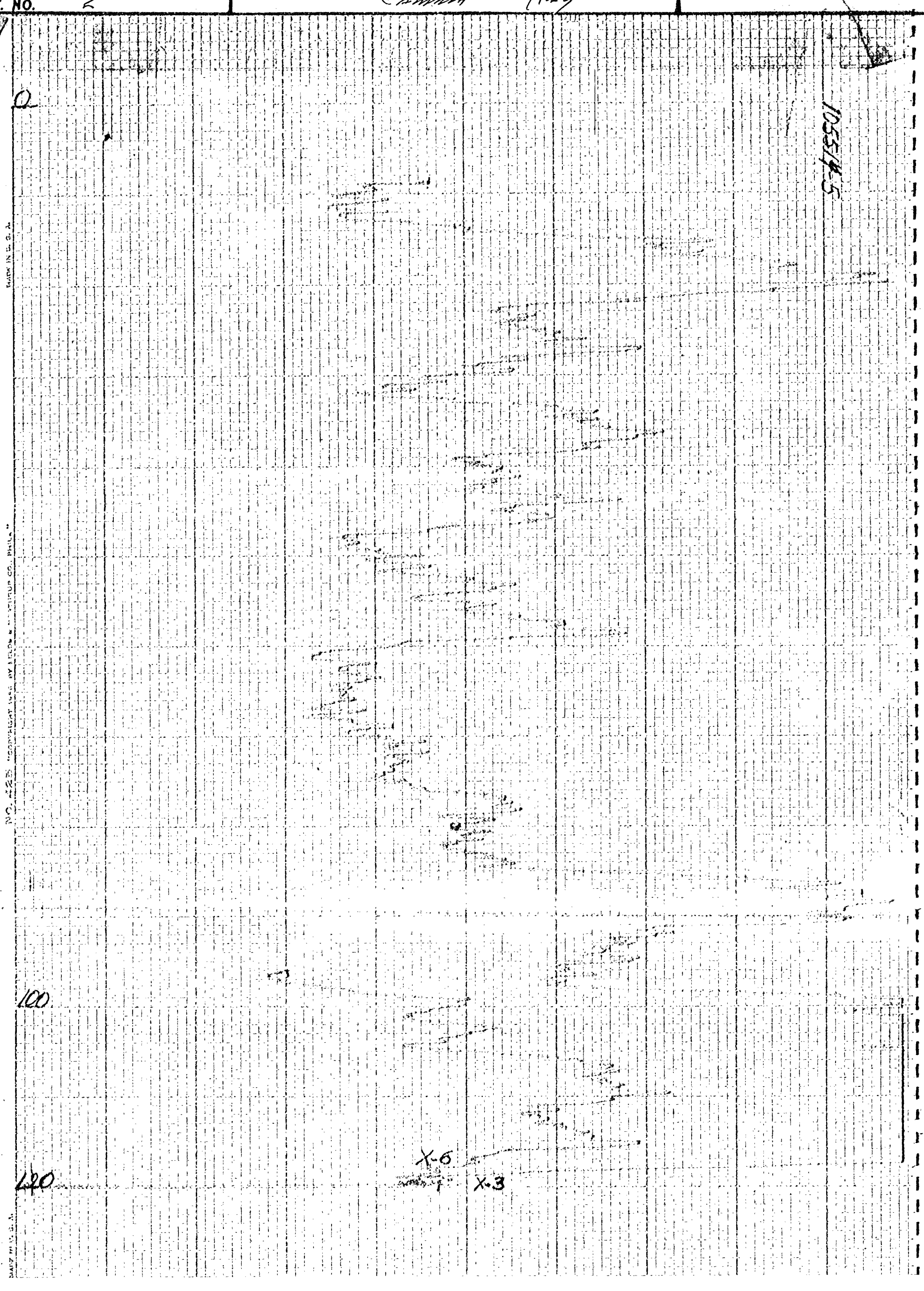


I hereby certify this plat to represent a stadia survey of the claims shown hereon, said survey being made under my supervision and found to be true to the best of my knowledge.

Robert M. Kalogh
Reg'd Surveyor

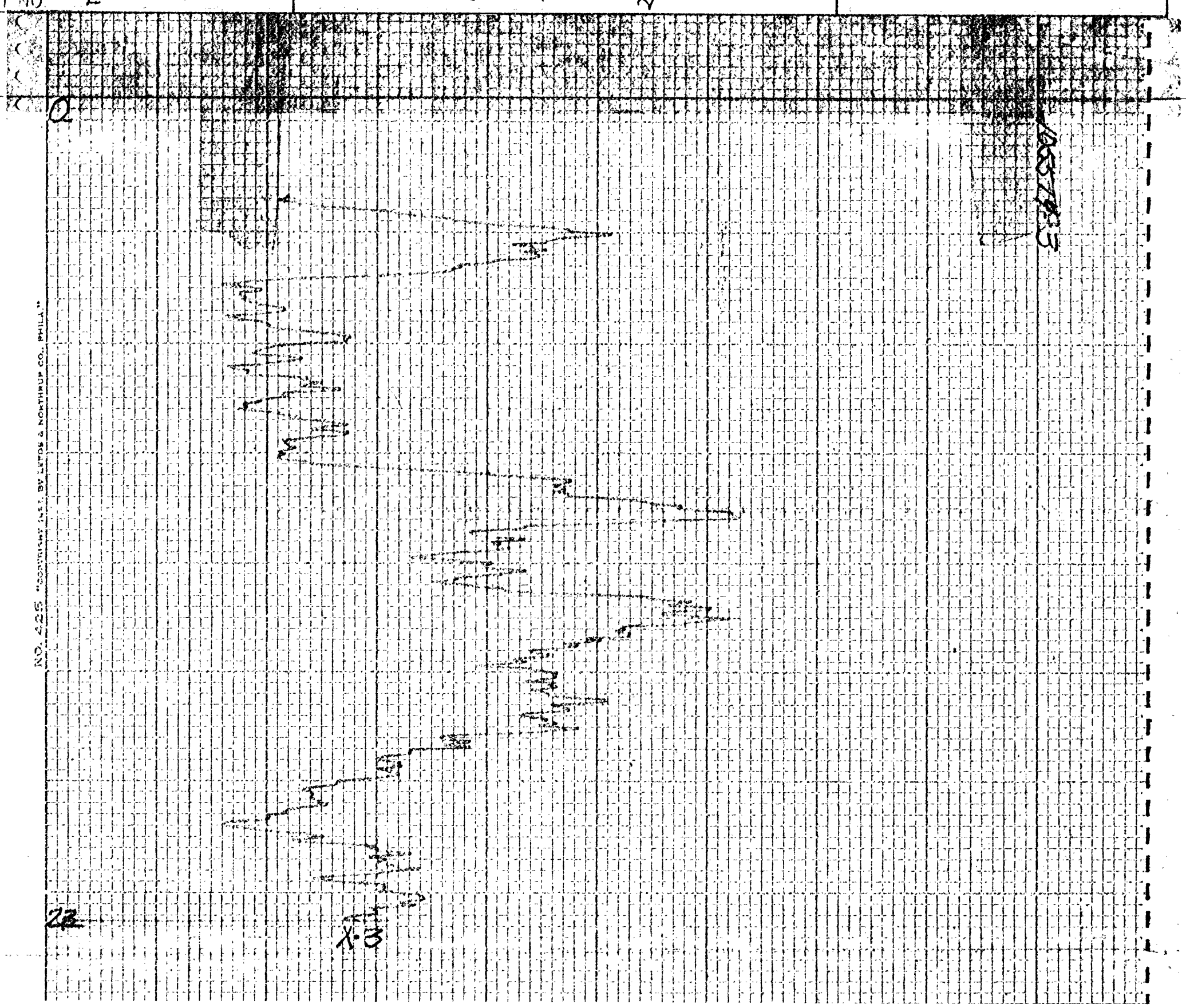
Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 9	WELL #15	
LAST READING 120	LOCATION Ft Sal Mtns.	
FOOTAGE MEASURED 120	COUNTY	
MAX. DEPTH REACHED 120	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



Empire Logging Co.

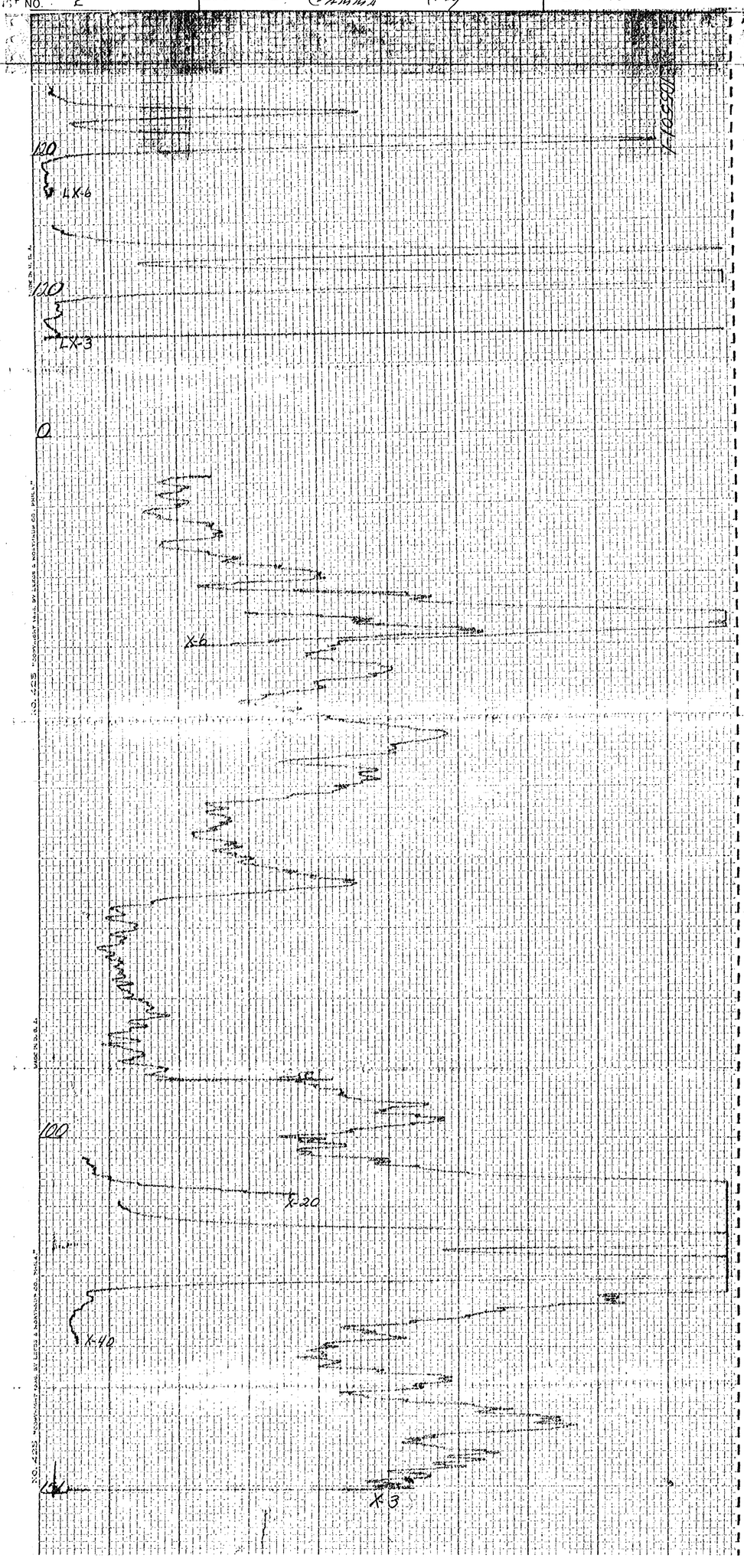
DATE 10-14-55	COMPANY Liberty oil & Gas	Location of Well
FIRST READING 2'	WELL T4	
LAST READING 23	LOCATION La Sal Mtns.	
FOOTAGE MEASURED 23	COUNTY	
MAX. DEPTH REACHED 23	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
INST NO. #2		



NO. 425 "CONTROL" MADE BY KEUFFEL & ESSER CO. PHILA.

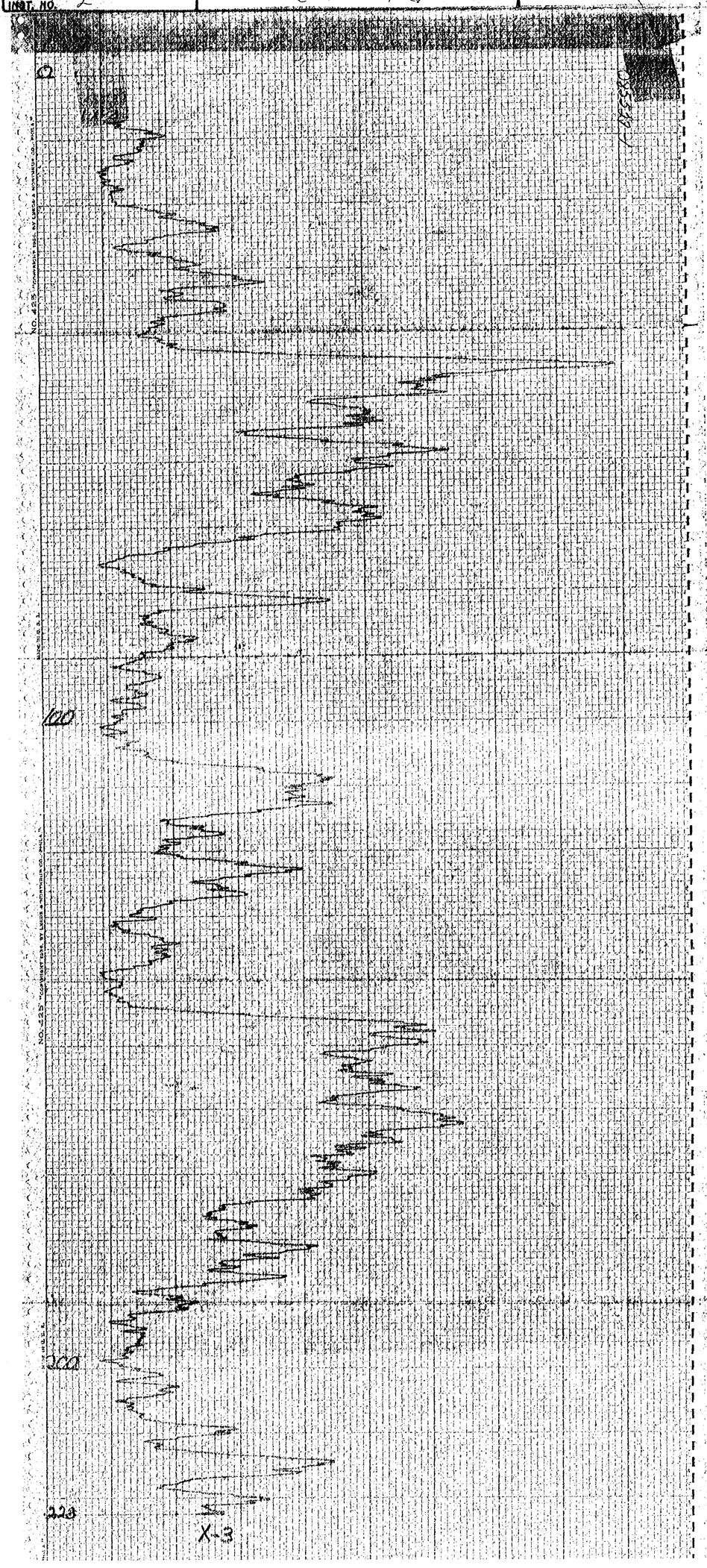
Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas.	Location of Well
FIRST READING 5	WELL # 13	
LAST READING 151	LOCATION 4a Sal 13 Tns	
FOOTAGE MEASURED 151	COUNTY	
MAX. DEPTH REACHED 151	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
RUN NO. 2		



Empire Logging Co.

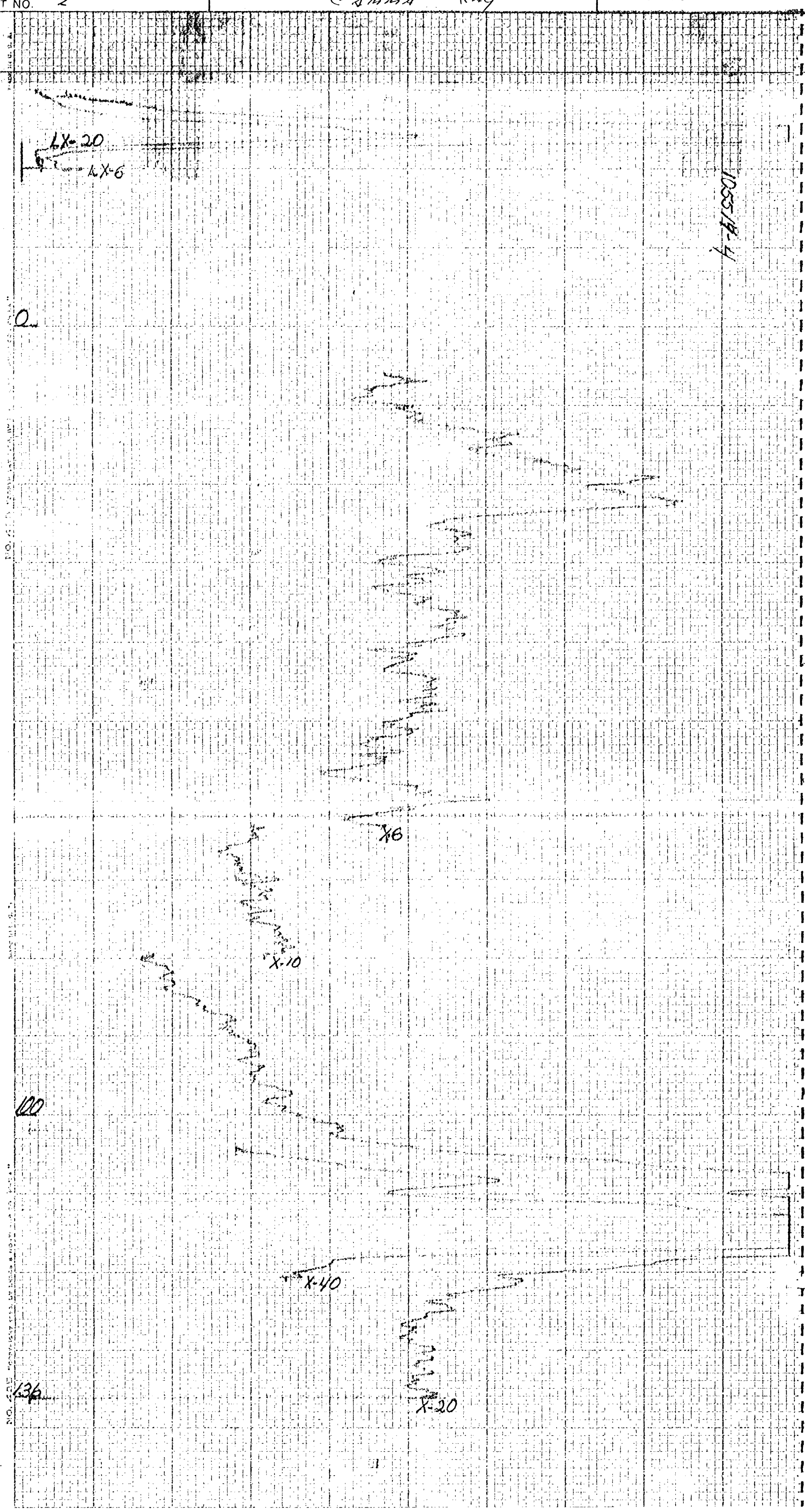
DATE 8-27-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 2	WELL Red Devil 2 Hole #2	
LAST READING 223	LOCATION La Sal Mts	
FOOTAGE MEASURED 223	COUNTY San Juan	
MAX. DEPTH REACHED 223	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



X-3

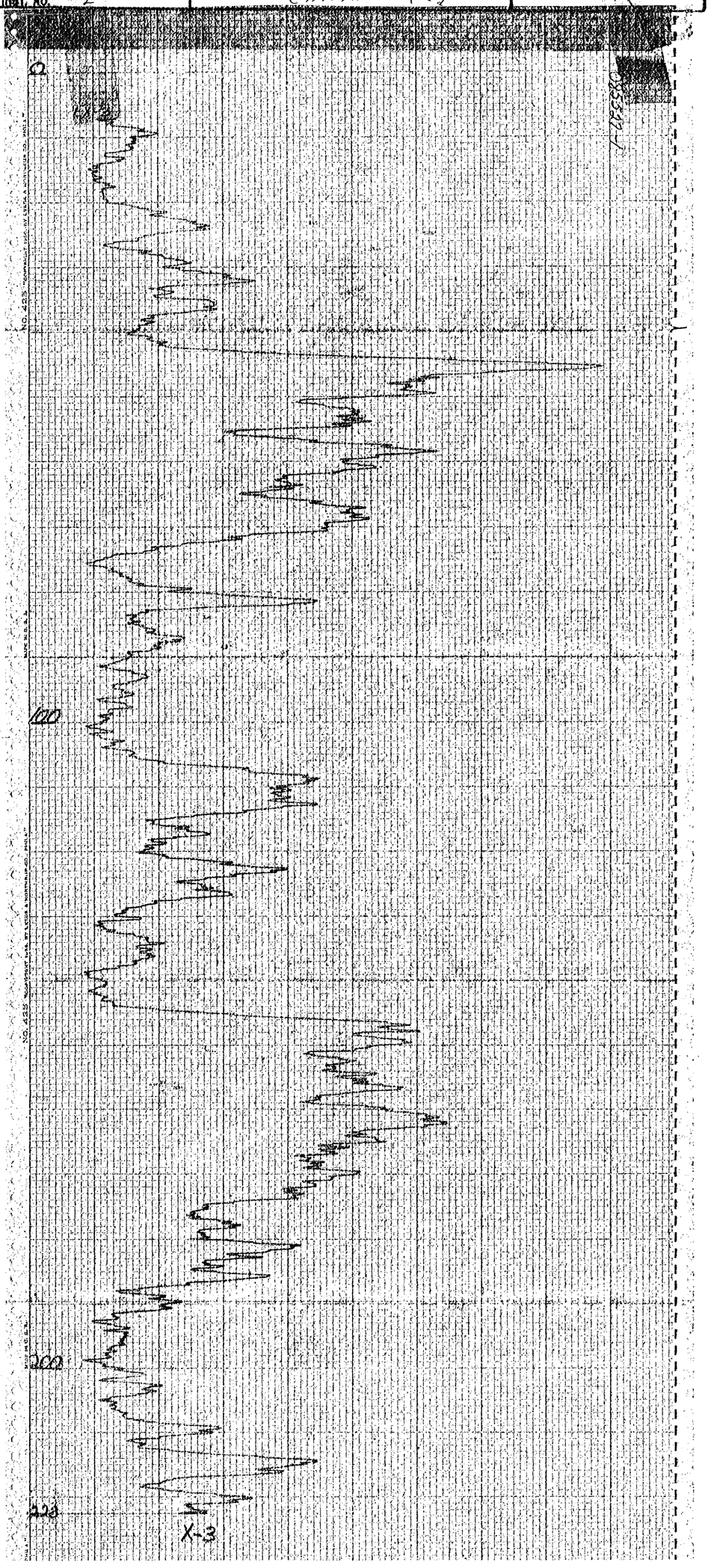
Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 6	WELL #14	
LAST READING 136	LOCATION 1a 8s/14Ers.	
FOOTAGE MEASURED 136	COUNTY	
MAX. DEPTH REACHED 136	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
TEST NO. 2		



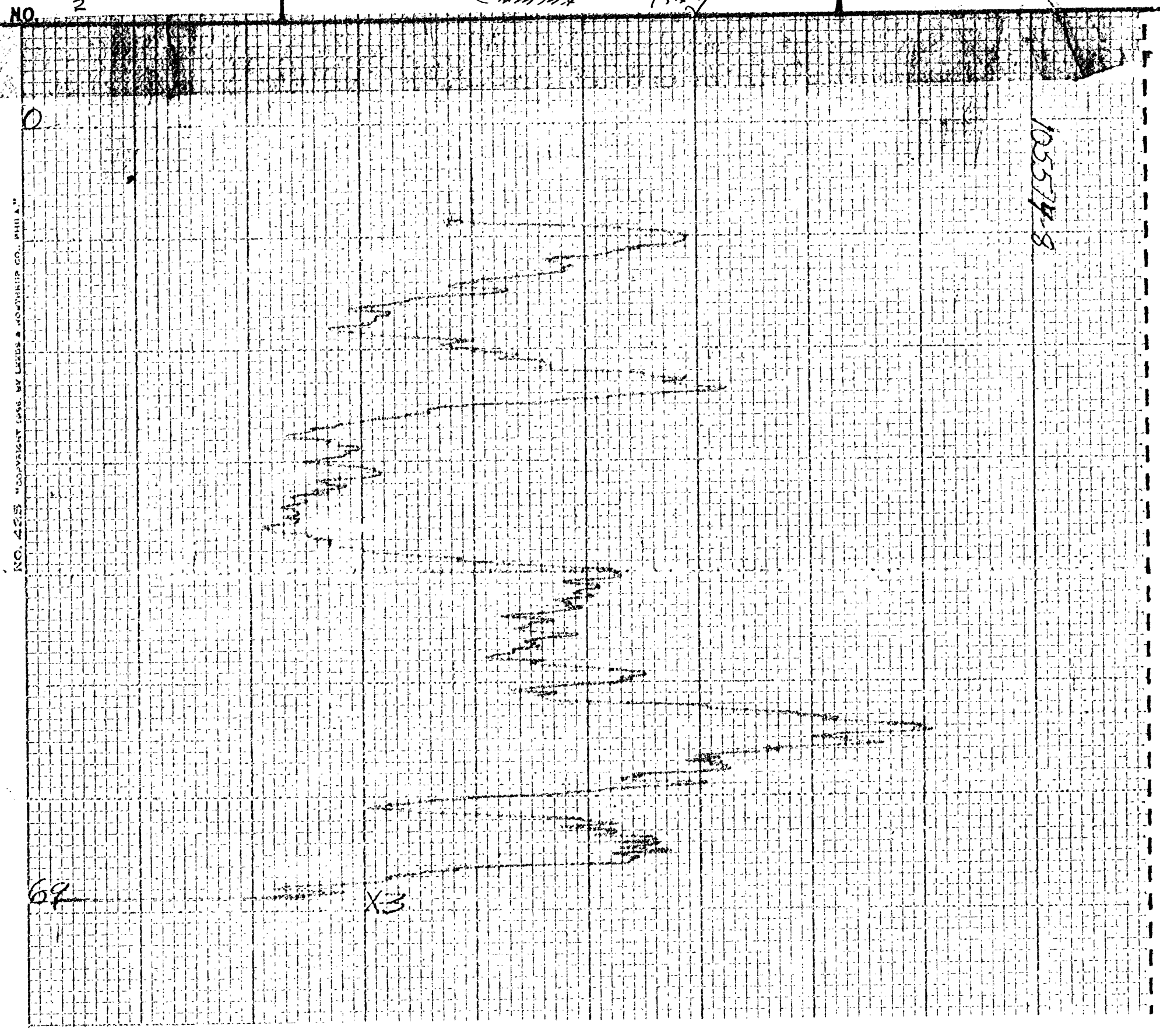
Empire Logging Co.

DATE 8 27 55	COMPANY Liberty Oil & Uran	Location of Well
FIRST READING 7	WELL Red Devil 2 Hole #2	
LAST READING 223	LOCATION La Sal Mtns	
FOOTAGE MEASURED 223	COUNTY San Juan	
MAX. DEPTH REACHED 223	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



Empire Logging Co.

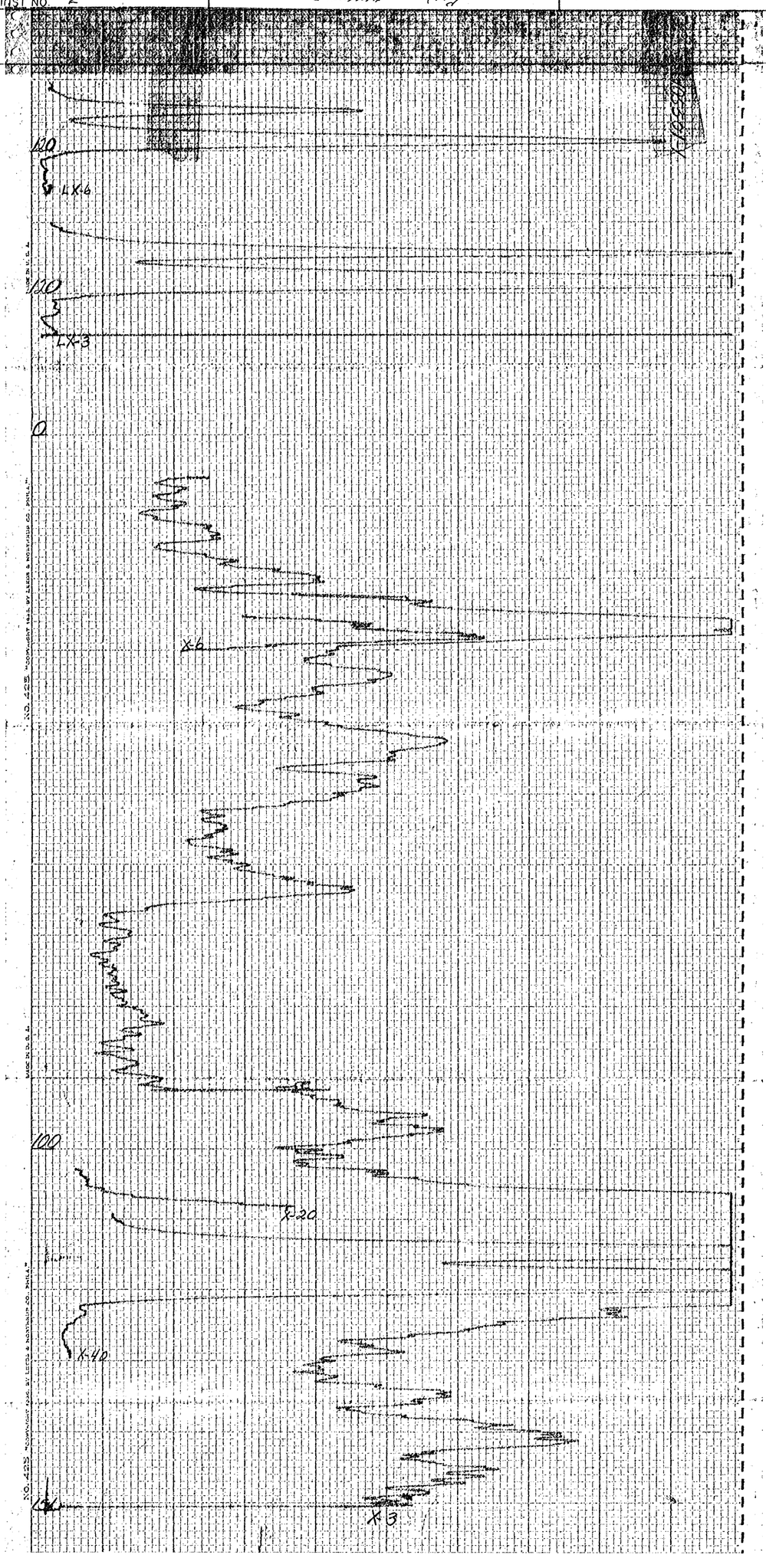
DATE 10-14-55	COMPANY Liberty Oil & Gas.	Location of Well
FIRST READING 8'	WELL T 2	
LAST READING 69'	LOCATION Ex Sal Mtns	
FOOTAGE MEASURED 69'	COUNTY	
MAX. DEPTH REACHED 69'	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



NO. 425 COPYRIGHT 1956, BY LEEDS & NORTHRUP CO., PHILA.

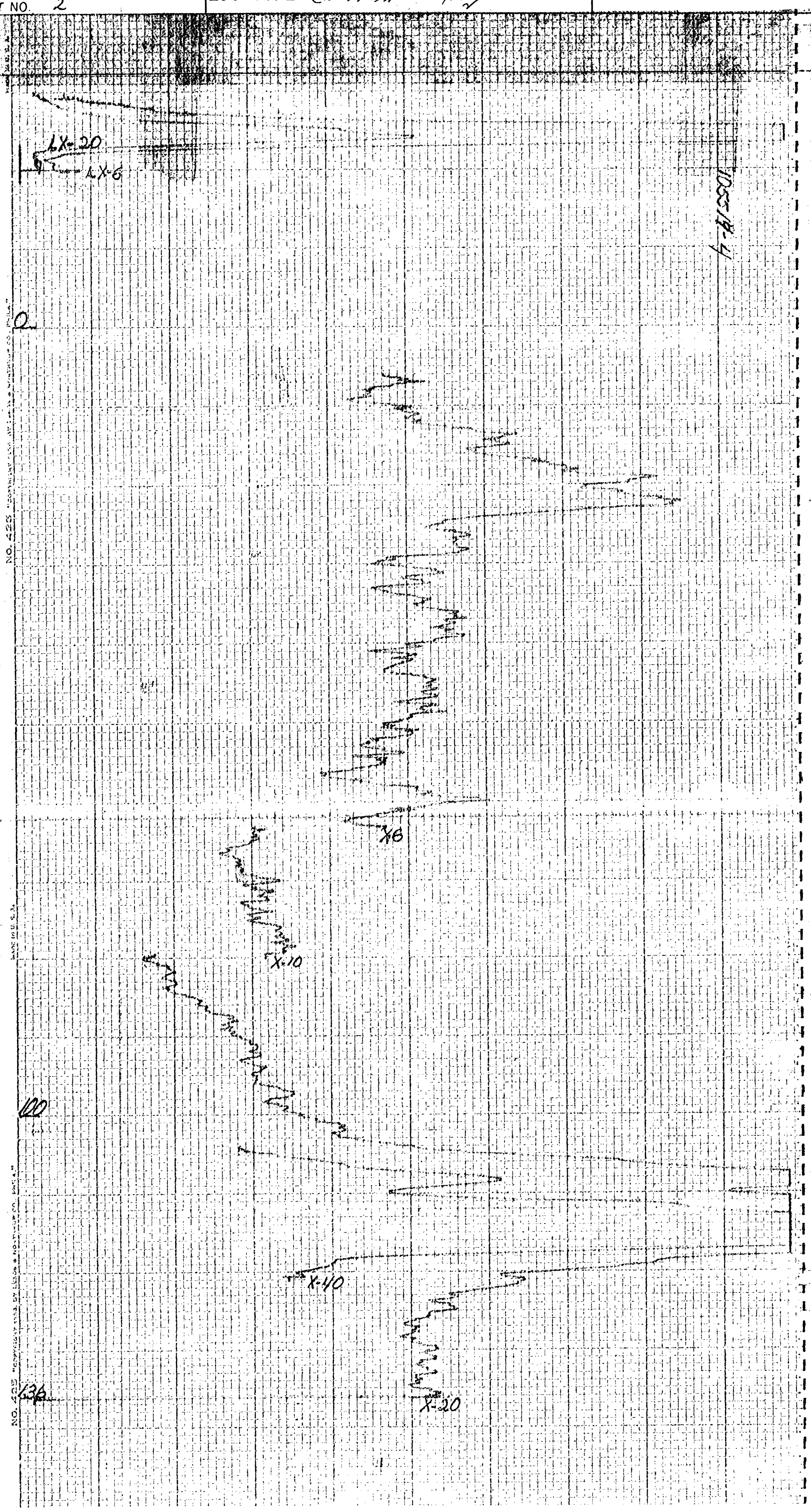
Empire Logging Co.

DATE 10 - 14 - 55	COMPANY Liberty Oil & Chem	Location of Well
FIRST READING 5	WELL #13	
LAST READING 151	LOCATION La Sal Mtns	
FOOTAGE MEASURED 151	COUNTY	
MAX. DEPTH REACHED 151	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
LIST NO. 2		



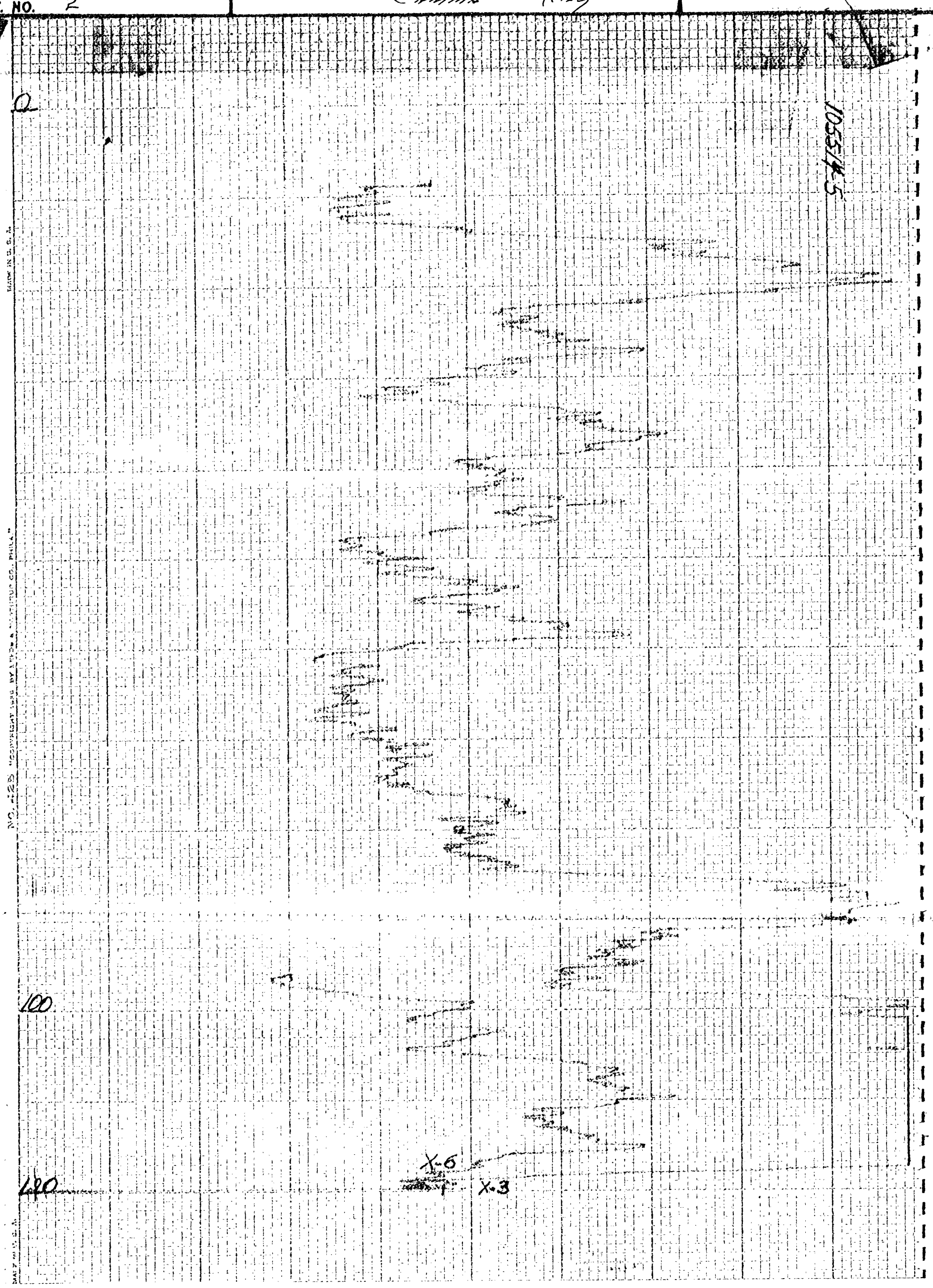
Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 6	WELL #14	
LAST READING 136	LOCATION Lo Sal Mts	
FOOTAGE MEASURED 136	COUNTY	
MAX. DEPTH REACHED 136	STATE Utah	Elevation
REC. SPEED 7/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
RUN NO. 2		



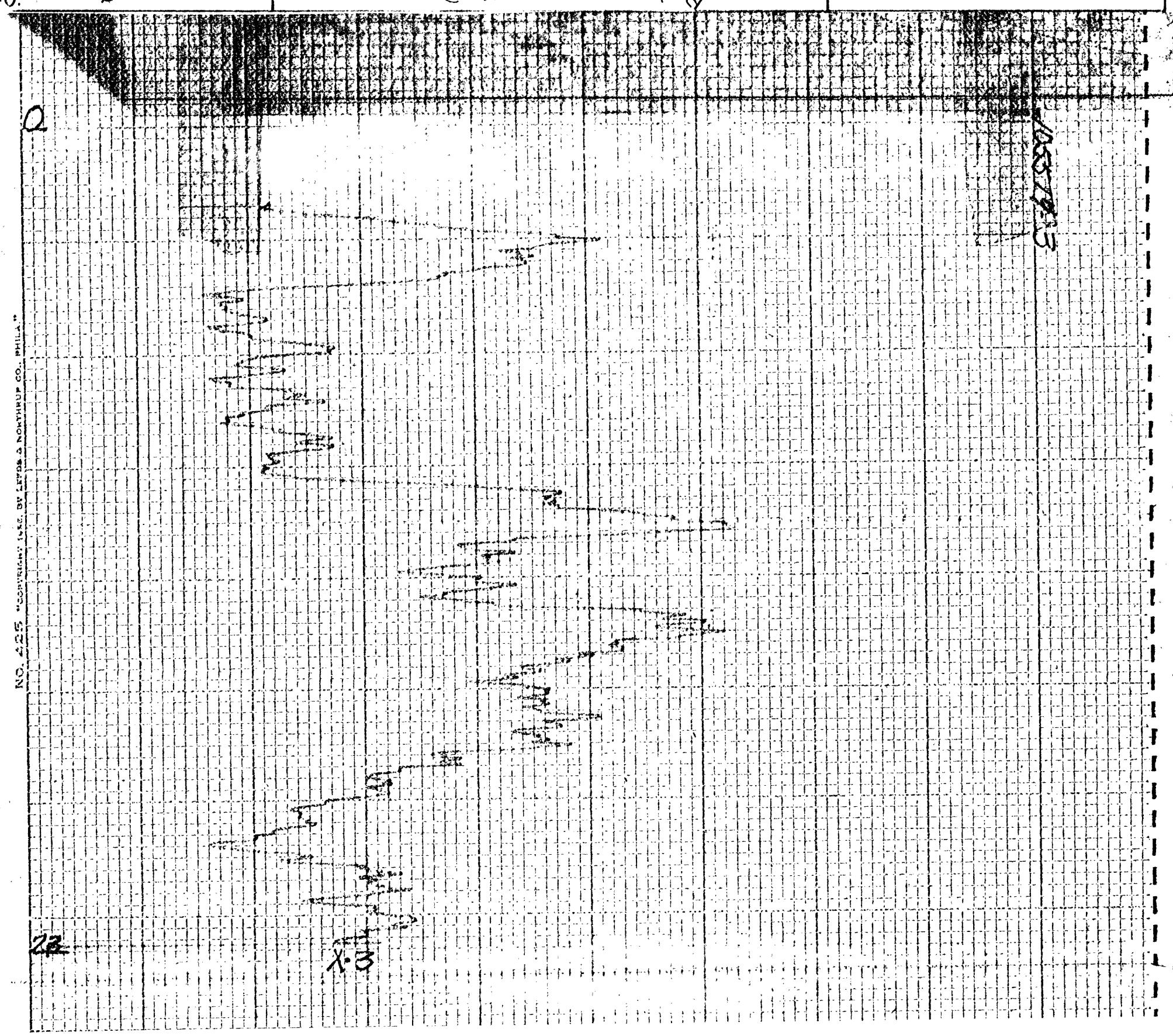
Empire Logging Co.

DATE 10-14-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 9	WELL #15	
LAST READING 120	LOCATION Ft Sal Mtns.	
FOOTAGE MEASURED 120	COUNTY	
MAX. DEPTH REACHED 120	STATE Utah	Elevation
REC. SPEED 7/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		



Empire Logging Co.

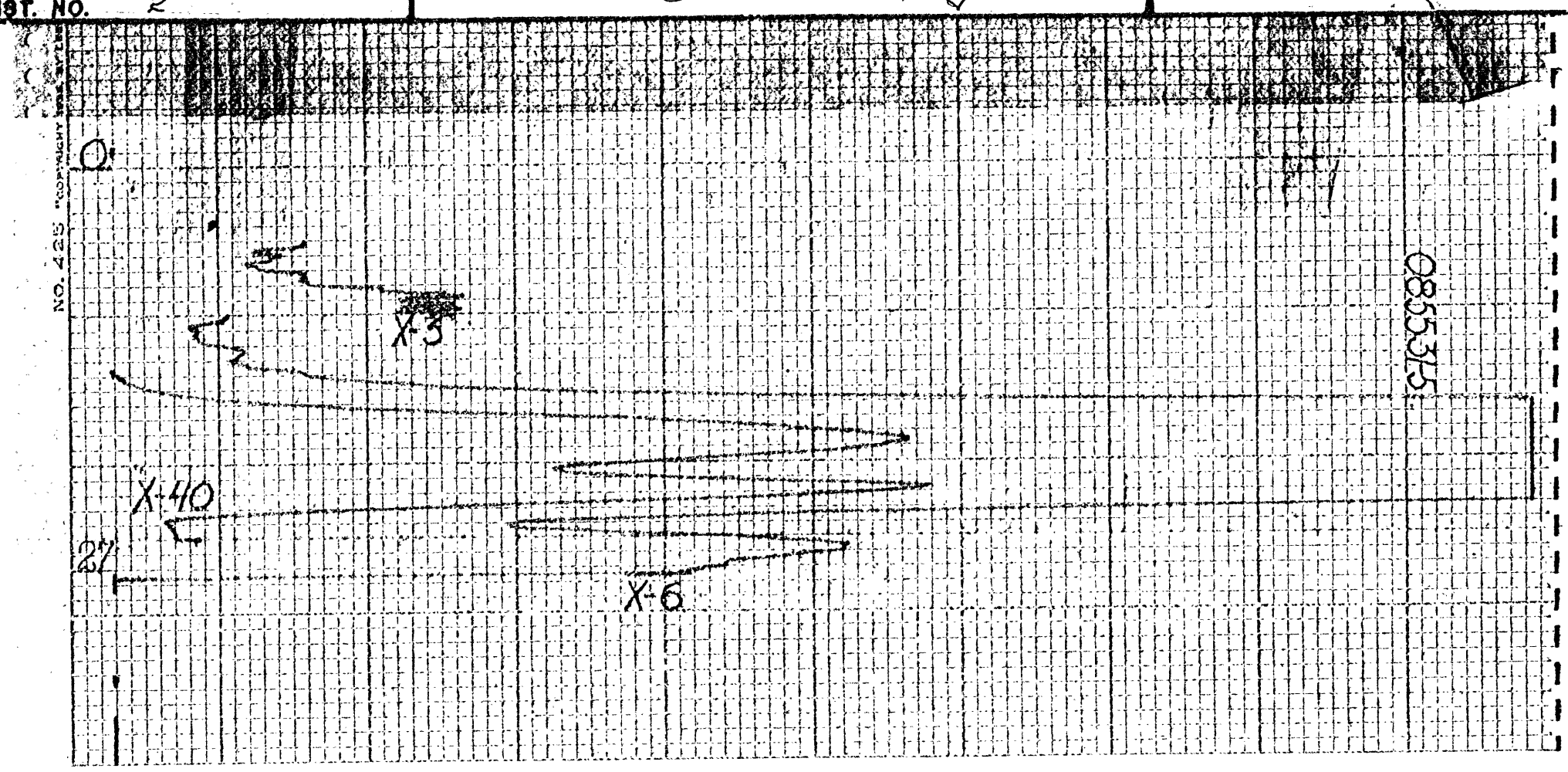
DATE 10-14-55	COMPANY La Sal Oil & Gas	Location of Well
FIRST READING 2'	WELL T 4	
LAST READING 73'	LOCATION La Sal Mtns.	
FOOTAGE MEASURED 73'	COUNTY	
MAX. DEPTH REACHED 73'	STATE Utah	Elevation
REC. SPEED 2'/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING NO.
NO. 2		

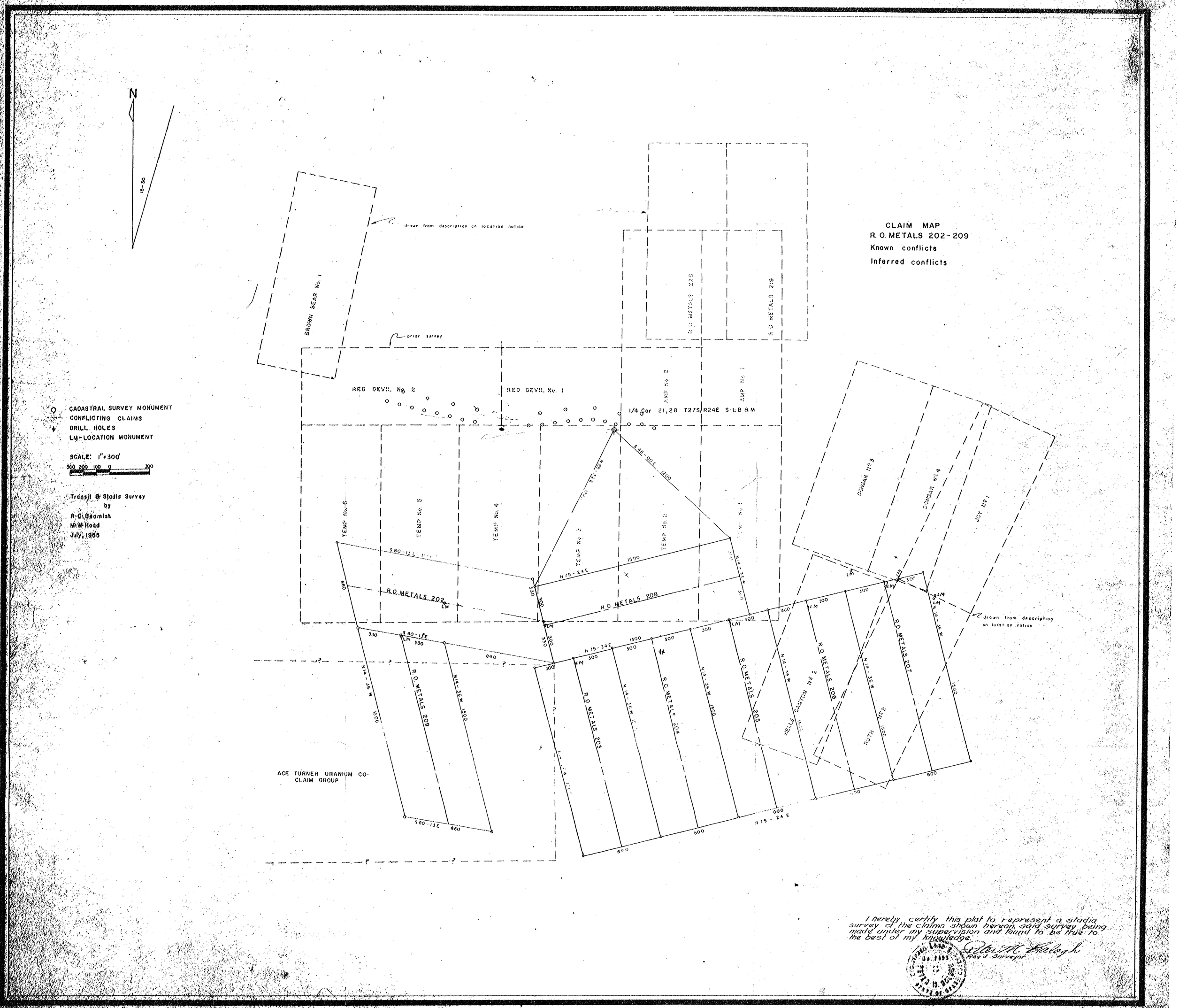


NO. 425 "COPYRIGHT 1955, BY LEFOS & NOWTHRUP CO., PHILA."

Empire Logging Co.

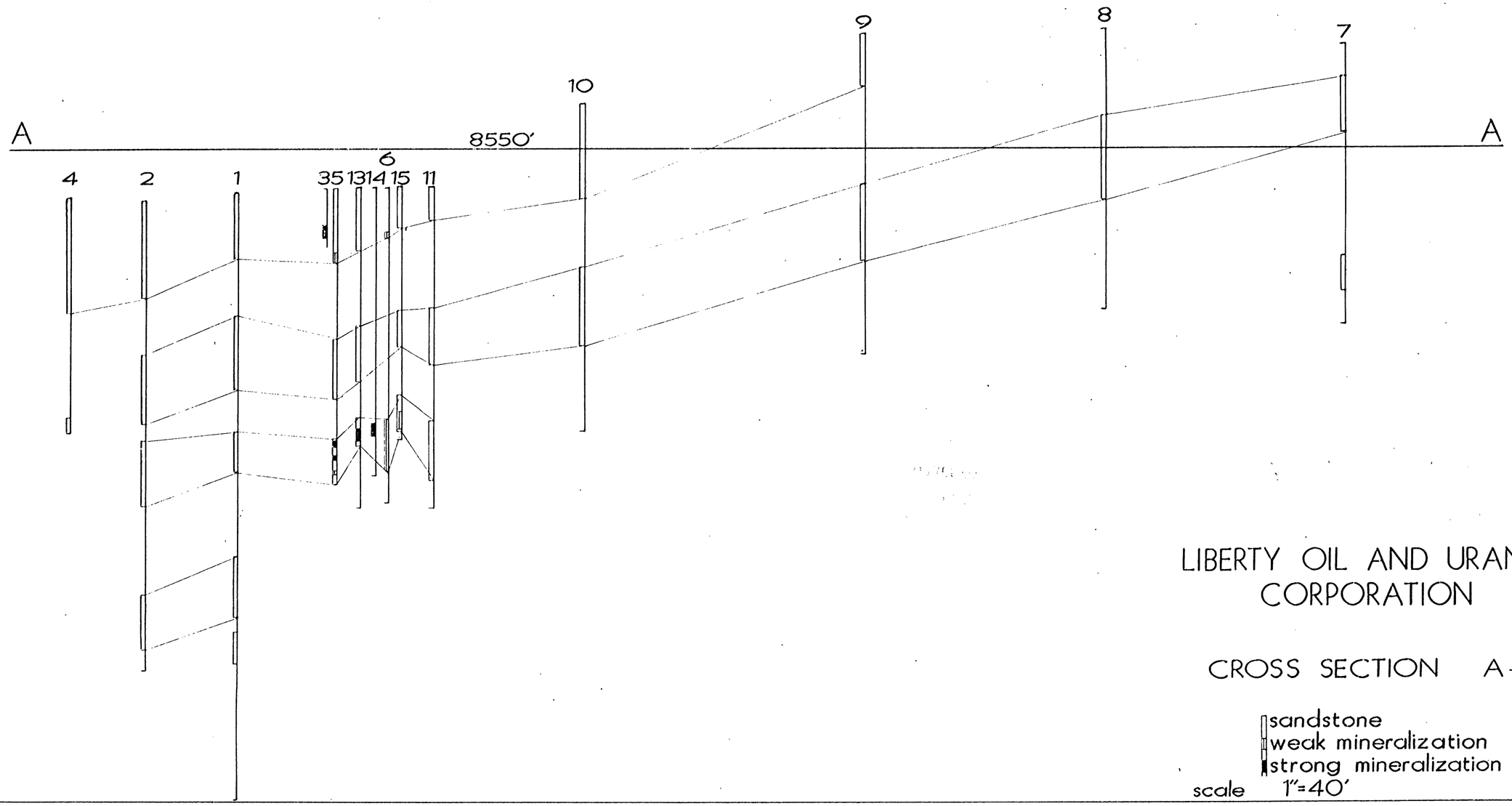
DATE 10-14-55	COMPANY Liberty Oil & Gas	Location of Well
FIRST READING 5	WELL #3	
LAST READING 27	LOCATION 1a Sal Mts.	
FOOTAGE MEASURED 22	COUNTY	
MAX. DEPTH REACHED 22	STATE Utah	Elevation
REC. SPEED 2/min		
SENSITIVITY 1		
TIME CONST. 10		
OBSERVER Sullivan	LOG TYPE Gamma Ray	FILING No.
INST. NO. 2		





I hereby certify this plat to represent a stadia survey of the claims shown hereon, said survey being made under my supervision and found to be true to the best of my knowledge.

Robert H. Kellogh
Reg'd Surveyor

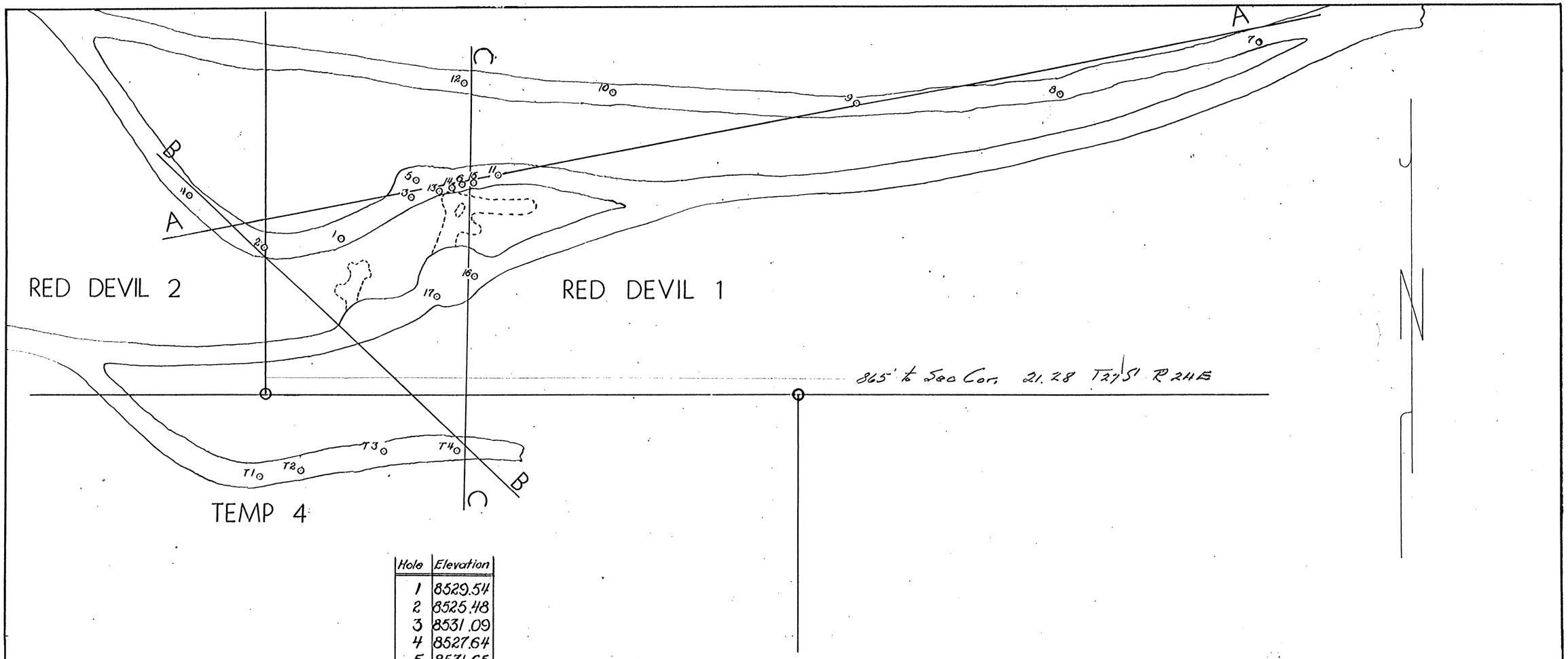


LIBERTY OIL AND URANIUM CORPORATION

CROSS SECTION A-A

sandstone
weak mineralization
strong mineralization

scale 1"=40'



Hole	Elevation
1	8529.54
2	8525.48
3	8531.09
4	8527.64
5	8531.65
6	8531.89
7	8598.71
8	8605.71
9	8603.60
10	8572.10
11	8532.14
12	8567.70
13	8531.72
14	8531.75
15	8532.14
16	8513.37
17	8512.37
T1	8453.28
T2	8455.28
T3	8455.98
T4	8456.58

LIBERTY OIL AND URANIUM CORPORATION

DRILL HOLE LOCATION MAP

scale 0 100'

roads not surveyed